# CONSUMPTION OF CITRUS FRUITS AND RELATED PRODUCTS IN BALTIMORE AND ST. LOUIS

Consumers' Counsel Division
Agricultural Adjustment Administration
United States Department of Agriculture
June 1938

# Consumption of Citrus Fruits and Related Products in Baltimore and St. Louis

GEORGE W. HERVEY
Chief, Research and Statistical Section

Consumers' Counsel Division
Agricultural Adjustment Administration
United States Department of Agriculture
June 1938

CONTENTS


| | Page |
|---|---|
| Summary | III |
| General statement | 1 |
| Supply during period of survey | 2 |
| Description of samples | 3 |
| Frequency of use | 5 |
| Users and nonusers | 5 |
| Time of original use | 9 |
| Time of most recent use | 9 |
| Regularity of use | 9 |
| Quantity of oranges and grapefruit consumed | 10 |
| Oranges | 10 |
| Grapefruit | 15 |
| Consumption of canned products | 16 |
| Canned tomato juice | 17 |
| Canned pineapple juice | 18 |
| Other canned or bottled products | 18 |
| Explanation of use | 18 |
| Manner of use | 20 |
| Oranges | 20 |
| Grapefruit | 21 |
| Canned tomato juice | 22 |
| Other products | 22 |
| Income and use at breakfast | 22 |
| Relation of income to consumption | 25 |
| Oranges and grapefruit | 25 |
| Canned tomato juice | 26 |
| Income and cost of living | 29 |
| Need for repeated surveys | 32 |
| Preferences for brands | 32 |
| Other purchasing habits | 35 |
| Source of purchase | 35 |
| Source of purchase and nationality | 36 |
| Source of purchase and income | 38 |
| Source of purchase and price | 39 |
| Usual quantities | 40 |
| Selection on basis of quality | 42 |
| Appendix A: Methods of procedure | 43 |
| Appendix B: Supplementary tables | 46 |

## Summary

The Consumers' Counsel Division of the Agricultural Adjustment Administration, in the spring of 1936, conducted a survey in Baltimore, Md., and St. Louis, Mo., to obtain information on consumer attitudes, preferences, purchasing habits, and other factors determining the use of: Fresh oranges, fresh grapefruit, five canned juices (tomato, grapefruit, pineapple, prune, and orange), canned grapefruit, and dairy orange beverage. The field work was done by trained enumerators. Schedules were filled out for 1,012 households in Baltimore and 1,017 in St. Louis. Analysis of the data obtained shows the following facts and tendencies:

1. Fresh oranges had been used by more than 95 percent of the households surveyed in either city, fresh grapefruit by more than 80 percent, and canned tomato juice by more than 50 percent, with the proportions for the other products ranging lower.

2. Each of the five canned juices had been used at least once in a larger number of the homes in Baltimore than in St. Louis. Canned grapefruit had been used in slightly more of the homes, and dairy orange beverage in many more, in St. Louis.

3. The incomes of households that never had used fresh grapefruit and of those that never had used canned tomato juice, while not confined to the very low levels, were comparatively low on the average.

4. In relatively few households was the consumption of any of the seven canned or bottled products a habit of long standing.

5. Fresh oranges were used habitually by 83.8 percent of the households surveyed in Baltimore and by 75.8 percent of those in St. Louis, and fresh grapefruit by 52.2 percent in Baltimore and 44.1 percent in St. Louis. The respective proportions for canned tomato juice were 29.7 and 23.2 percent, and for canned pineapple juice, 10.8 and 8.0 percent, with smaller proportions for the remaining products.

6. Average per capita consumption of each of the five canned juices was greater in the households surveyed in Baltimore than in those in St. Louis. Average per capita consumption was higher in St. Louis for each of the other products.

7. Individuals in small households consumed, on the average, more oranges, grapefruit, or canned tomato juice than did those in large households. Because of lack of adequate data no corresponding tendency could be satisfactorily established for any of the other products.

8. Per capita consumption of oranges, grapefruit, or canned tomato juice was less, on the average, for households with adults and children than for those with adults only. The per capita quantity tended to vary inversely with the number of children.

9. Variation on the basis of nationality or race occurred in the per capita consumption of oranges, grapefruit, and canned tomato juice. Members of households classified as foreign Jewish, native white, or northern European, used more of these products than did others; lowest consumption was found among members of Negro households.

10. In general, per capita consumption of the products studied was greater for households in which the male workers were clerical or professional, than for those with manual workers.

11. "Don't desire more" and "can't afford more" were the reasons most frequently given by housewives for not using larger quantities of fresh oranges, grapefruit, or canned tomato juice.

12. On the average, the higher the household income the greater was the per capita consumption of oranges or grapefruit. The data were inadequate for drawing similar conclusions in regard to the other products.

13. On the average, the household with a high income spent considerably more money for food and for rent than did the one with a low income, but proportionately more of the income was used for food and for rent by the households of low income.

14. Oranges, grapefruit, and canned tomato juice were each used chiefly at breakfast, although use of these products between meals, at lunch, or at dinner was frequently reported.

15. The practice of purchasing fresh oranges and grapefruit by brand was more common among the households in St. Louis than among those in Baltimore, but the canned products were purchased by brand more frequently in Baltimore.

16. Food or grocery stores ranked first as the place of purchase of both oranges and grapefruit, with fruit stands second and hucksters third. Food stores were in greater favor among households of relatively high income in Baltimore.

17. One dozen oranges at a time was the usual purchase by each of approximately 70 percent of the housewives who answered the question on the quantity of oranges bought. Two grapefruit at a time was the rule for about one-third of the housewives reporting on grapefruit. There was extremely wide variation in customary purchases of the canned products.

# Consumption of Citrus Fruits and Related Products In Baltimore and St. Louis

## General Statement

This report illustrates how converging problems of producers and consumers of agricultural commodities can be responsible for the development of information useful to both groups.

In February 1936 the Consumers' Counsel Division of the Agricultural Adjustment Administration was asked by officials of the Giannini Foundation of Agricultural Economics to take part in a study of the extent and nature of the use of California canned orange juice. Such a study was considered timely because of an unfavorable economic outlook for the orange industry. With farm prices of oranges averaging below predepression levels and the trend in production rising both in the United States and in certain foreign countries, growers were worried about the profitableness of their future operations. The problem was intensified by uncertainty about the future effect of an expanding production of orange concentrates and byproducts, especially canned juice, on the sale of the fresh fruit.

It was proposed that the Consumers' Counsel Division conduct a field survey on the extent of the use of canned orange juice and the attitudes of consumers toward it.[1] The Division was appealed to on the grounds that consumers share with producers an interest in the prompt movement of the annual supply of oranges into channels of distribution, in discovering new outlets or methods of broadening the demand, and in the comparative demand for the fresh fruit and for the juice as food.

Upward trends in the consumption of other fruits and juices suggested that the survey should be broad enough to obtain information about the consumption of a few products other than California canned orange juice. It seemed likely that data from suitably arranged schedules would indicate: (1) The extent to which incomes of wage earners govern the use of the foods included in the investigation; (2) what level of income would permit of greater consumption; (3) the degree of substitution of one food for the other; and (4) how

[1] The Giannini Foundation assumed responsibility for ascertaining the volume of the manufacture of the product and subsequently published a preliminary report thereon. See Stover, H. J., The Manufacture and Use of California Canned Orange Juice, Mimeographed Report No. 45, The Giannini Foundation of Agricultural Economics, April 1935.

variability of preferences among households is associated with differences in financial ability to buy.

Funds available permitted interviews with about 2,000 housewives. It was believed that the results would be more satisfactory statistically if data were acquired on the attitudes and preferences of 1,000 families in each of two cities rather than if contacts were made in more cities and a smaller sample taken in each. It was recognized that the cities should be situated in different consuming areas, and should be similar in make-up of population. Baltimore and St. Louis were chosen.

Since these two cities resemble each other in several pertinent characteristics, differences between them in the consumption of citrus products should tend to reflect real differences in dietary practices. According to the Census of 1930, both are about the same in total population, in average size of family, and in persons above 10 years of age who are gainfully employed. Oranges and grapefruit in large volume are shipped to Baltimore from Florida and to St. Louis from California, Texas, and Arizona, and each city has a well-organized auction market for fresh fruits.

The survey in Baltimore was made between April 13 and April 25, 1936, and that in St. Louis between April 27 and May 9, 1936.[2] Housewives were interviewed by enumerators who asked questions about attitudes and preferences and entered the answers on schedules covering nine different products: Fresh oranges, fresh grapefruit, five canned juices—tomato, grapefruit, pineapple, prune, and orange—canned grapefruit, and dairy orange beverage.

Along with this major activity, four subordinate surveys also were conducted. Using schedules that differed according to the group being interviewed, the enumerators obtained separate data on the use or sale of the designated products, from predetermined samples of (1) large-scale users (hospitals, restaurants, hotels), (2) wholesale distributors of groceries, and (3) retail stores. The fourth survey covered only the extent of the sale of dairy orange beverage by dairy plants distributing this product to retail stores or direct to consumers. The results of these surveys will be discussed in a separate report.

## Supply During Period of Survey

The supply of oranges available to consumers, as indicated by shipments during April 1936, was the same as that available during March. Average weekly shipments for March 1936 were 2,628 cars

[2] D. E. Montgomery, Consumers' Counsel, helped to plan the survey, frequently aided in the interpretation of data collected, and made constructive suggestions during the preparation of this report.

Mary E. Gross was in general charge of the enumerators. Sidney N. Gubin and J. Hendley Jones were responsible for special phases of the field work.

Edward E. Gallahue, Consumers' Counsel Division, Dr. Frederick V. Waugh, Bureau of Agricultural Economics, U. S. Department of Agriculture, and Kelsey B. Gardner, Farm Credit Administration, gave advice from time to time on technical matters.

and for April 2,629 cars per week. Shipments during the first 2 weeks in May were somewhat lower, averaging 2,211 cars. The general trend of Florida orange shipments during April and May was slightly downward. Texas orange shipments, which form a comparatively small portion of the supply, even during the season of bulk movement, had ceased by April 1. California navel orange shipments were slightly downward during April 1936, but these diminishing shipments of navels were supplemented by slight increases in shipments of California Valencia oranges during the same period.

Grapefruit shipments during March 1936 averaged 887 cars a week as compared with 773 cars a week during April and 668 cars in each of the first 2 weeks of May. Florida grapefruit shipments declined slightly during April as compared with March. The first week's shipments of grapefruit in May were 546 cars, as compared with average weekly Florida grapefruit shipments in April of 577 cars. For the week ending May 9 Florida grapefruit shipments had declined to 397 cars. Texas grapefruit shipments ended April 4.

Although there was a slight decrease in shipments of both oranges and grapefruit during the period April 13, 1936, to May 9, 1936, as compared with the preceding month, this decline probably caused no appreciable price change except as price may tend to move upward in anticipation of decreasing supplies in the immediate future. The records for this period do not indicate an increased average auction price.

## Description of Samples

Sampling was carried out with reasonable completeness and the survey is believed to have avoided undue emphasis on neighborhoods of special income levels or standards of living. Moreover, the methods [3] that were followed assured contacts with households representatively distributed from the standpoints of size, nationality, occupation of wage earners, and other items essential for avoiding bias.

The households in Baltimore were composed of 4,323 persons, averaging 4.3, and those in St. Louis of 3,978 persons, averaging 3.9 (table 1). In Baltimore 69.7 percent of all persons within the scope of the survey, and in St. Louis 73.0 percent, were 16 years old or over, and for the purposes of this report were considered as adults. There were 1.3 children per household in Baltimore and 1.1 in St. Louis, the age classification 6 to 15 years, inclusive, being by far the most important numerically.

Most of the enumerators' contacts were made at private homes. In Baltimore only 15.2 percent of the households surveyed, and in St. Louis 19.5 percent, lived in apartments. In this connection a possible qualification of the results of the survey should be mentioned. All

[3] See appendix A for the schedule and description of the methods used in the survey.

interviews were held in the daytime, a procedure that tended to minimize the number of reports on households made up wholly of persons employed at offices or other places of business. The use of citrus products by the so-called light-housekeeping groups who, more than other groups, are given to dwelling in apartments, may have been somewhat inadequately recorded.

In respect to nationality or race, 45 percent of the households interviewed in Baltimore and 47 percent of those in St. Louis were recorded as "native white." Second in number were households designated as "northern European," representing 20 percent of the total in Baltimore and 24 percent in St. Louis. Negroes were third in frequency with 19 percent and 14 percent, respectively. The proportion for any other category was much smaller. These details are given with the understanding that the allocations were based largely on the country of birth of the husband (whether living or not) and the country of birth of the husband's father. If, for example, both husband and husband's father were white and born in the United States, the household was entered on the schedule as "native white," otherwise according to the proper alternative designation for nationality or race (table 1).

TABLE 1.—*Classification of households surveyed, by ages of dwellers, type of dwelling, and nationality*

| Basis of Classification | Baltimore | St. Louis |
|---|---|---|
| Persons per household—persons | 4.3 | 3.9 |
| Adults—do | 3.0 | 2.8 |
| Children—do | 1.3 | 1.1 |
| Under 2 years—do | .1 | .1 |
| 2 to 5 years, inclusive—do | .3 | .3 |
| 6 to 15 years, inclusive—do | .9 | .7 |
| Private homes—households | 858 | 819 |
| Apartments—do | 154 | 198 |
| Total | 1,012 | 1,017 |
| Nationality or race: | | |
| Native white—households | 452 | 473 |
| Foreign Jewish—do | 57 | 14 |
| Northern European—do | 204 | 240 |
| Eastern European—do | 50 | 35 |
| Mediterranean—do | 33 | 33 |
| Negro—do | 196 | 139 |
| Other—do | 20 | 83 |
| Total | 1,012 | 1,017 |

TABLE 2.—*Distribution of adults (16 years old or over), by occupation*

| Occupational class | Baltimore | St. Louis |
|---|---|---|
| | *Persons* | *Persons* |
| Clerical or professional workers | 536 | 669 |
| Manual workers | 853 | 620 |
| Housekeepers | 959 | 494 |
| Unemployed persons | 491 | 995 |
| Students | 22 | 69 |
| Not stated | 150 | 49 |
| Total | 3,011 | 2,896 |

The samples for the two cities differed, more than in any other detail, in occupations of the adults. Most of the members of the households who were 16 years old or over were distributed among four of the six occupational classes given in table 2. In Baltimore, housekeepers made up the largest group, 31.8 percent of all adults; manual workers were next, 28.3 percent; clerical or professional workers were third, 17.8 percent; and unemployed persons fourth, 16.3 percent. In St. Louis, persons designated as "unemployed" made up the leading group, 34.4 percent; the proportions of clerical or professional workers (23.1 percent) and manual workers (21.4 percent) were nearly equal; and housekeepers (17.1 percent) ranked but fourth.

Weekly incomes of 623 households in Baltimore averaged $23.74, and of 474 households in St. Louis $25.85. For 791 households in Baltimore the weekly expenditure for food per household amounted to $11.04, and for 589 households in St. Louis $10.13. Information on rent was given in 515 cases in Baltimore and 544 in St. Louis, the respective averages being $22.67 and $19.85 a month.

## Frequency of Use

Replies of housewives to questions dealing with frequency of use furnish a primary basis for judging attitudes of families toward the various products. Accordingly the data for the first four items of the schedule may be considered. All comments apply, of course, to consumption in the home, as information was not gethered in regard to eating habits outside.

**Users and nonusers.**—The answers to the first question, "Have you ever used product?" reveal that fresh oranges had been used by more than 95 percent of the households surveyed in both cities, fresh grapefruit by more than 80 percent, and canned tomato juice by more than 50 percent, with the proportions for the other products ranging lower. All five canned juices (tomato, pineapple, grapefruit, prune, and orange) had been used in more homes in Baltimore than in St. Louis. Canned grapefruit and dairy orange beverage apparently were better known in St. Louis, the former slightly and the latter decidedly so. The replies are summaried by products in table 3.

Comparison of the users and nonusers is perhaps more realistic in terms of the negative replies received. Conforming to proportions given above, of the 1,012 households surveyed in Baltimore, 11 never had used fresh oranges, 150 never had used fresh grapefruit and 435 never had used canned tomato juice. Of the 1,017 surveyed in St. Louis, 21 had never used fresh oranges, 202 had never used fresh grapefruit, and 488 had never used canned tomato juice. The numbers for the other products were much greater (table 3).

TABLE 3.—*Number of households reporting no use, use at least once, and the latter as percentage of total*

| Product | Households having used product at least once in— | | Households never having used product in— | | Proportion of households having used product at least once in— | |
|---|---|---|---|---|---|---|
| | Baltimore | St. Louis | Baltimore | St. Louis | Baltimore | St. Louis |
| Fresh fruit: | | | | | *Percent* | *Percent* |
| Oranges | 1,001 | 996 | 11 | 21 | 98.9 | 97.9 |
| Grapefruit | 862 | 815 | 150 | 202 | 85.2 | 80.1 |
| Canned juice: | | | | | | |
| Tomato | 577 | 529 | 435 | 488 | 57.0 | 52.0 |
| Pineapple | 320 | 268 | 692 | 749 | 31.6 | 26.4 |
| Grapefruit | 207 | 150 | 805 | 867 | 20.5 | 14.7 |
| Prune | 123 | 67 | 889 | 950 | 12.2 | 6.6 |
| Orange | 121 | 73 | 891 | 944 | 12.0 | 7.2 |
| Canned grapefruit | 194 | 215 | 818 | 802 | 19.2 | 21.1 |
| Dairy orange beverage | 36 | 189 | 976 | 828 | 3.6 | 18.6 |

The reasons inducing nonconsumption, in the sense expressed by the negative replies, were sought in the reports on those households, among the nonusers, whose incomes were learned. Within that restricted category, there was sufficient representation of households to warrant present review of the findings for only fresh grapefruit and canned tomato juice. For fresh grapefruit these selected cases totaled 101 in Baltimore and 103 in St. Louis, and for canned tomato juice 283 in the former city and 239 in the latter.[4] Income distributions, covering all but a very few of them, are presented graphically in figure 1.[5]

Comparisons were made of the incomes of the nonusers and users of fresh grapefruit. The distributions of the households by income afford a suitable basis for contrast. Approximately two-thirds of the cases of nonuse of fresh grapefruit in Baltimore were composed of households receiving less than $19.85 for the week preceding the interviews and in St. Louis of those receiving less than $26.25 for the same period. In contrast, two-thirds of the comparable cases of use of grapefruit within the week in Baltimore were composed of households with incomes less than $30.10 and in St. Louis with incomes less than $38.30. The data in table 29, appendix B, illustrate further that the incomes of the users were generally higher than of the nonusers.[6]

The explanations of the housewives themselves as to why fresh grapefruit had not been used would lead to contrary conclusions concerning the effect of income. Of the Baltimore cases referred to, "can't

[4] Included in the 283 Baltimore households that never had used canned tomato juice were 78, and in the 239 St. Louis households 65, that never had used fresh grapefruit also.

[5] Figure 1 applies to households with incomes of less than $50 for the week. See tables 29 and 34, appendix B, for the complete data.

[6] The per capita incomes of the nonusers of fresh grapefruit in Baltimore averaged $4.07 and in St. Louis $5.59 for the week. The per capita incomes of the users in Baltimore averaged $6.74 and in St. Louis $8.99.

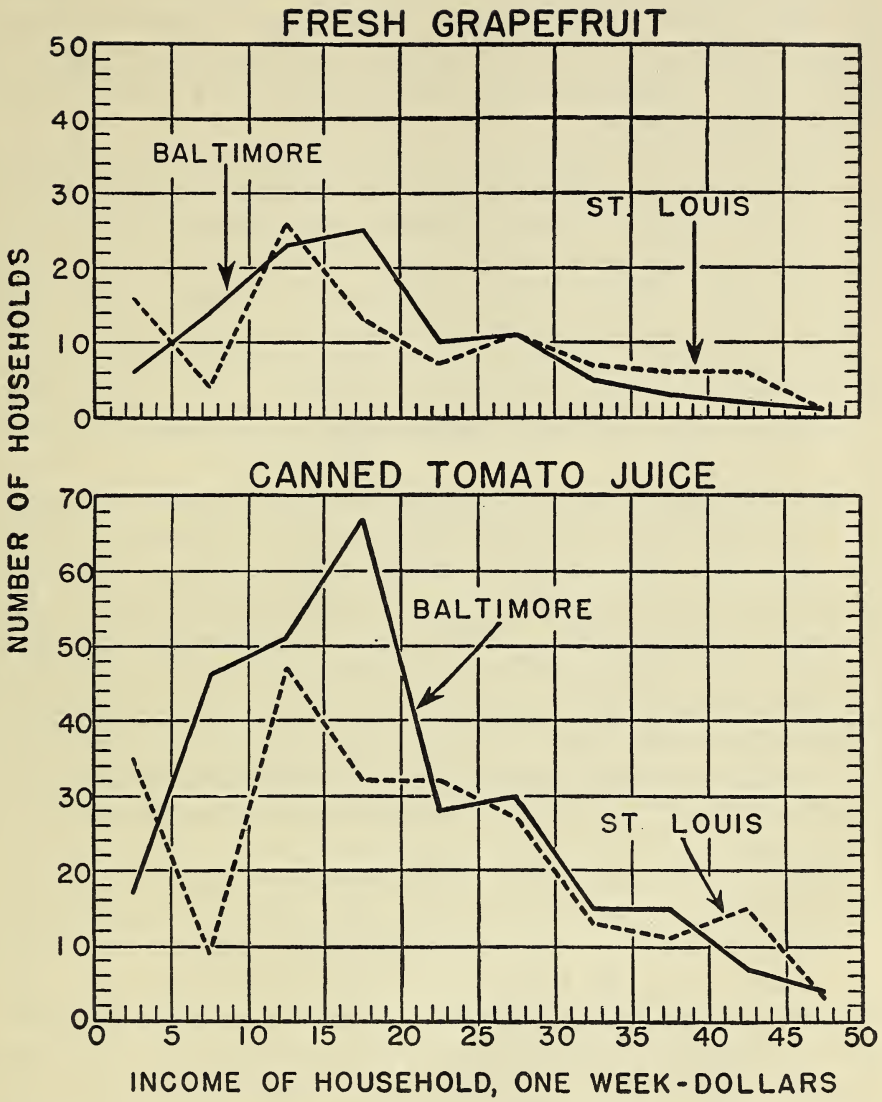


FIGURE 1.—Upper diagram shows the distribution of 100 households in Baltimore and of 97 in St. Louis, reported as never having used grapefruit, according to income for the week preceding the interviews; lower diagram shows the distribution of 280 households in Baltimore and 224 in St. Louis that never had consumed canned tomato juice. Incomes, while not confined to the lowest levels, were low as a whole. The most common class of income for both groups in Baltimore was $15 to $20, and in St. Louis $10 to $15.

afford" was the reason advanced in a little than one-half [7] and "don't care for it" in approximately one-fourth. In St. Louis, however, just the reverse was true as "don't care for it" was stated in one-half and "can't afford" in one-fourth.[8] Other reasons were individually of little consequence, with the possible exception of preference for other fruits in Baltimore, which was expressed in 14 of the 101 cases considered in that city.

Comparisons were also made of the incomes of the nonusers and users of canned tomato juice. Every household included in two-thirds of the cases of nonuse of that juice, in Baltimore received less than $21.40 and in St. Louis less than $25.80 for the week preceding the interviews. Two-thirds of the comparable cases of use of the product within the week in Baltimore were households with incomes of less than $32.30 and in St. Louis of those with incomes less than $36.50. Table 34, appendix B, gives detailed data indicating that the incomes of the users were usually higher than of the nonusers of canned tomato juice.[9]

The reasons given by the housewives for the nonuse of canned tomato juice were somewhat more varied than for the nonuse of fresh grapefruit but "can't afford" was the most frequent.[10] In both Baltimore and St. Louis that reason was stated in 30 percent of the particular cases in question. In Baltimore preference for other juices was expressed in 16 percent, objection to tomato juice in canned form in 16 percent also, and "don't care for it" in 14 percent. In St. Louis the making of tomato juice at home was the explanation in 16 percent, "do not care for product" accounted for 13 percent and preference for other juices for 10 percent. Additional reasons were comparatively unimportant.

It is doubtful if the results of the preceding income comparisons would have been much different if a greater number of the cases covered by the survey could have been taken into account. Moreover, beyond the scope of the survey there was undoubtedly a substantial proportion of families in both Baltimore and St. Louis that had not consumed fresh grapefruit in their homes, and an even larger proportion that had not consumed canned tomato juice. The available data warrant the belief that the incomes of such families, although not all at the poorest levels, were generally low, comparing unfavorably with the incomes of the users. The reasons given by the house-

[7] "Can't afford" was stated in 45 of the 101 Baltimore cases of nonuse of fresh grapefruit. The corresponding per capita incomes averaged $2.79 for the week.

[8] "Can't afford" was stated in 26 of the 103 St. Louis cases of nonuse of fresh grapefruit. The corresponding per capita incomes averaged $2.82.

[9] The per capita incomes of the nonusers of canned tomato juice in Baltimore averaged $4.50 and in St. Louis $5.93 for the week. The per capita incomes of the users in Baltimore averaged $7.09 and in St. Louis $7.74.

[10] "Can't afford" was stated in 85 of the 283 cases of nonuse of canned tomato juice in Baltimore and in 72 of the 239 similar cases in St. Louis. The corresponding per capita incomes averaged in Baltimore $2.99 and in St. Louis $3.05 for the week.

wives for nonuse can be construed as supporting this conclusion to some extent at least.

**Time of original use.**—Inquiries about time of first use were confined to the seven canned or bottled products. In relatively few households was the consumption of any of these products a habit of long standing. This applies even to canned tomato juice, which was well known earlier than the others. According to the reports covering several hundred of the homes surveyed in each city, in the majority of cases canned tomato juice was first consumed within the 3 years immediately preceding the inquiry. The information on several of the remaining six products was forthcoming only on relatively few households but a yearly upward trend in the number of initial consumers was generally apparent. Sharp, fairly recent, increases had occurred in the number of cases of first use of canned pineapple juice in Baltimore and of dairy orange beverage in St. Louis. The detailed comparative data for all seven products may be found in table 13, appendix B.

**Time of most recent use.**—The replies of housewives to the question "When did you last use product?" disclosed comparatively widespread recent consumption of fresh oranges, fresh grapefruit, and canned tomato juice. Within 1 week of the enumerators' visits oranges had been consumed by about 90 percent of the households covered by the reports on time of latest use of that fruit. Approximately 70 percent of the corresponding reports on fresh grapefruit and 60 percent of the reports on canned tomato juice also revealed consumption within the week. There was much more variation in the dates given by the housewives concerning the other products but the majority fell between January 1, 1936, and the end of the week before the interviews. As previously stated the survey was made in April and May 1936. The replies to the above question therefore, would not indicate any particular lapse in the consumption of any of the nine products (table 14, appendix B).

**Regularity of use.**—The answers to the question "How often do you use product?" varied so widely from one home to another that only broad classifications could be adopted for summarizing them. In table 4 the households are accordingly divided by products, into the habitual and nonhabitual users.

There was little uniformity in the regularity of use of one product as compared with another. Fresh oranges were consumed habitually [11] by approximately 80 percent of the households represented in the data collected on the practice followed with respect to that fruit. Correspondingly, fresh grapefruit was used habitually by about 60 per-

[11] The term "habitually" is somewhat indefinite but from certain answers of housewives (table 15, appendix B) and from opinions of the enumerators it is presumed to denote any frequency from daily to only once a month; twice weekly is perhaps the average meaning.

cent of the households represented, and canned tomato juice by one-half. The evidence in table 4, relating to the other canned products, shows that in general the infrequent consumers exceeded the frequent. It would appear, therefore, that if the replies to the above question were typical of other cities, appreciably greater numbers of families need to become familiar with these canned products before they can be regarded as really favored articles of diet in urban American homes.

TABLE 4.—*Households classified according to habitual or nonhabitual use of each product*

| Product | Households reported as— | | Total households | Proportion of total households reported as— | |
|---|---|---|---|---|---|
| | Habitual users | Nonhabitual users | | Habitual users | Nonhabitual users |
| **BALTIMORE** | | | | | |
| Fresh fruit: | | | | *Per cent* | *Per cent* |
| Oranges | 848 | 141 | 989 | 85.7 | 14.3 |
| Grapefruit | 528 | 297 | 825 | 64.0 | 36.0 |
| Canned juice: | | | | | |
| Tomato | 301 | 252 | 553 | 54.4 | 45.6 |
| Pineapple | 109 | 188 | 297 | 36.7 | 63.3 |
| Grapefruit | 55 | 123 | 178 | 30.9 | 69.1 |
| Prune | 47 | 49 | 96 | 49.0 | 51.0 |
| Orange | 37 | 65 | 102 | 36.3 | 63.7 |
| Canned grapefruit | 51 | 123 | 174 | 29.3 | 70.7 |
| Dairy orange beverage | 9 | 18 | 27 | 33.3 | 66.7 |
| **ST. LOUIS** | | | | | |
| Fresh fruit: | | | | | |
| Oranges | 771 | 206 | 977 | 78.9 | 21.1 |
| Grapefruit | 448 | 305 | 753 | 59.5 | 40.5 |
| Canned juice: | | | | | |
| Tomato | 236 | 261 | 497 | 47.5 | 52.5 |
| Pineapple | 81 | 169 | 250 | 32.4 | 67.6 |
| Grapefruit | 34 | 107 | 141 | 24.1 | 75.9 |
| Prune | 11 | 45 | 56 | 19.6 | 80.4 |
| Orange | 14 | 50 | 64 | 21.9 | 78.1 |
| Canned grapefruit | 45 | 146 | 191 | 23.6 | 76.4 |
| Dairy orange beverage | 34 | 129 | 163 | 20.9 | 79.1 |

## Quantity of Oranges and Grapefruit Consumed

Fresh oranges and fresh grapefruit are considered in the present section, with especial reference to the quantities eaten. Data are examined for each fruit with the view of showing how consumption differed from household to household and of presenting some facts in explanation. Size of household, number of children, nationality or race, and occupation of wage earners, are separately treated as factors contributing to the variation in question. The role of income in governing consumption, which is pertinent to all these factors, is reserved for later discussion.

**Oranges.**—Information about the quantities of oranges eaten, in the week before the survey, was obtained on nearly 1,000 households in Baltimore and St. Louis alike. On both the household and per

capita bases the level of consumption, as indicated by the averages (table 5), was slightly higher in St. Louis than in Baltimore. In view of the differences, it is unfortunate that sizes of the oranges could not have been recorded during the survey but lack of the additional data probably does not seriously impair the comparison between the cities. Some support is accorded this belief by the fact that greater consumption of fresh fruit in St. Louis was not confined to oranges but extended to grapefruit as well.

TABLE 5.—*Average quantity of each specified product consumed in 1 week*

| Product | Average quantity for households in— | | Average quantity for for persons in— | |
|---|---|---|---|---|
| | Baltimore | St. Louis | Baltimore | St. Louis |
| Fresh fruit; | | | | |
| Oranges | 14.4 | 15.4 | 3.38 | 3.94 |
| Grapefruit | 2.2 | 2.6 | .53 | .66 |
| Canned juice; | | | | |
| Tomato ounces | 10.6 | 9.2 | 2.48 | 2.36 |
| Pineapple do | 2.8 | 1.7 | .65 | .44 |
| Grapefruit do | 1.4 | .9 | .33 | .24 |
| Prune do | .7 | .2 | .17 | .05 |
| Orange do | .9 | .3 | .20 | .09 |
| Canned grapefruit do | 1.1 | 1.3 | .26 | .33 |
| Dairy orange beverage do | .3 | 2.8 | .08 | .72 |

Averages are based on both users and non-users. See tables 19, 24, 30, and 35 to 40, inclusive, appendix B.

The distributions of the households, according to the number of oranges used in the week, are presented in table 19, appendix B. Indicative of the greater family consumption in St. Louis, the households represented in the classes up to and including 1 dozen oranges constituted 63 percent of the total for that city and 69 percent for Baltimore. One dozen was the most common quantity but 2 dozen, 0.5 dozen, and 0 dozen were each reported frequently. Examining table 19 in detail, it is apparent that there was a well-developed practice of buying oranges in multiples of 1 dozen or 0.5 dozen. This is disclosed again in the later section describing purchasing habits.

Orange consumption was more directly considered by taking into account the number of individuals in the family, as in table 20, appendix B. In general, the members of small-sized households ate more of the fruit than those of large-sized. To make one comparison, the average per capita quantity for the two-person class in each city was between 4.5 and 5 oranges for the week, whereas for the seven-person class it was only 2.5 oranges. While the per capita levels, class by class, tended to be a little higher for St. Louis than for Baltimore, the downward variation in consumption from one size of household to another was relatively about the same for the two cities. Most of these facts are portrayed graphically by the diagrams referring to oranges in figure 2; these diagrams are based on table 20 (except

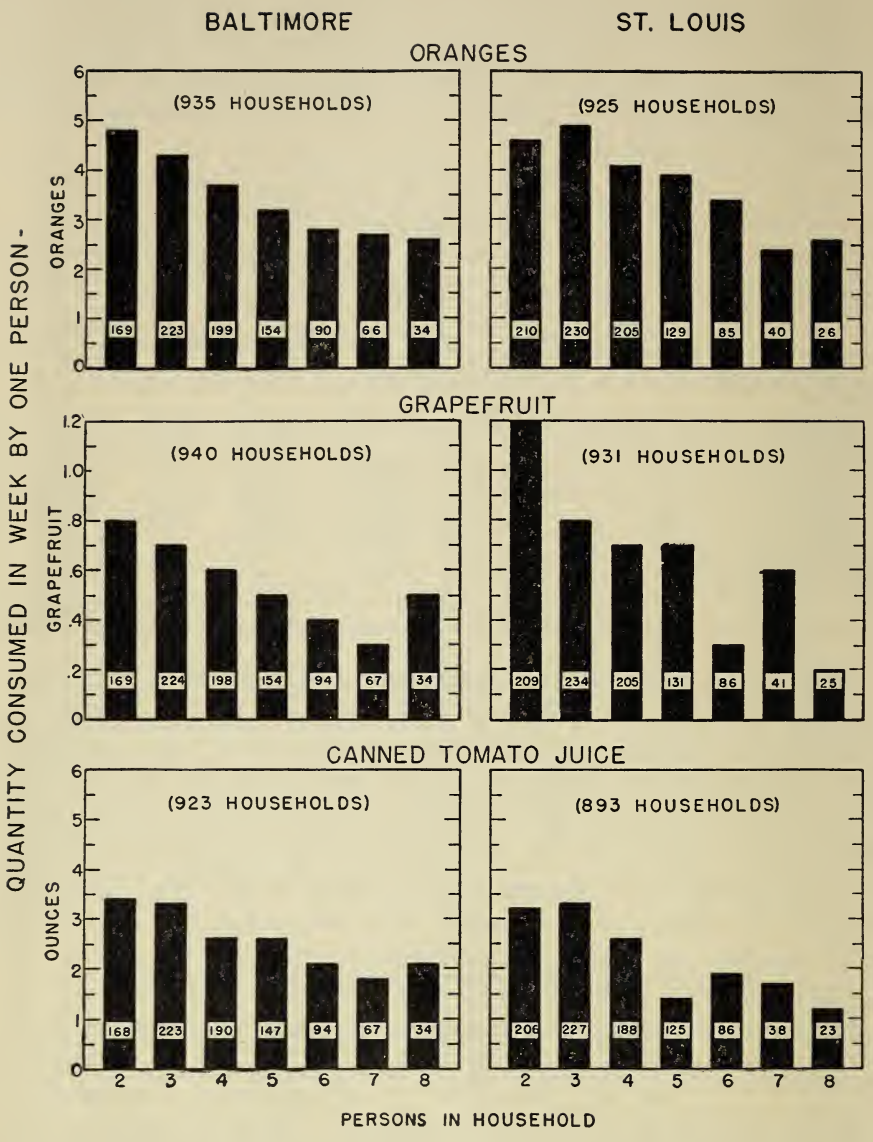


FIGURE 2.—For oranges, grapefruit, or canned tomato juice the greater the number of persons living together the less, on the average, was the quantity consumed by an individual. The number of households underlying the average is stated in each case on the bar for the size class considered.

that the classes shown in that table for one person and for nine or more are omitted in the diagrams).

Fresh orange consumption by children must be judged indirectly as specific questions thereon were not asked by the enumerators. The bar charts in the upper part of figure 3 summarize the results of a study that was confined to data for households of two adults with or without children as designated. Where there were no children the average per capita quantity exceeded 4.5 oranges for the week. Persons in households with children [12] ate smaller quantities; for example, the average per capita consumption for the households with two adults and four children in Baltimore was only 2.5 oranges and in St. Louis 3.4 (table 21, appendix B). Although the consumption cannot be translated into terms applying solely to children, the evidence obviously proves that the greater the number of children in the household the less, on the average, was the quantity of oranges available for each child to eat.

Some variation in orange consumption was also discovered on the basis of nationality or race. Comparative data covering use of the fresh fruit in the week considered in these analyses are given in table 22, appendix B. The average per capita quantity for the week was greatest for the class defined as foreign Jewish (approximately five oranges in Baltimore and six in St. Louis). Of the total households surveyed, those reported as foreign Jewish numbered but 57 in Baltimore and 14 in St. Louis (table 1), yet this class was notable in that there were no cases of nonconsumption. Northern Europeans ranked second and native whites third. The averages for the two latter classes were between 3.5 and 4.5 oranges per capita. The per capita quantities were smaller for the other classes, very slightly in some instances, appreciably in the case of the Negro (only two oranges).

Occupation in relation to orange consumption in the week preceding the survey was investigated by making a study of two-person households, each consisting of a housewife and an employed adult male. The households were classified on the basis of whether the wage earner was engaged in clerical or professional pursuits or in manual. The data are given in table 18, appendix B.

In Baltimore the average per capita quantity was about the same for the two occupational classes, slightly more than five oranges. In St. Louis the average per capita quantity for the clerical or professional households was 5.9 oranges, nearly two oranges more than for the manual. Although resting on comparatively few cases, the evidence is perhaps sufficient to raise some doubt that in St. Louis oranges have

[12] Ages of children varied slightly with the successive classes considered in this study of orange consumption. In Baltimore, the average was 7.2 years for the households with one child, then increasingly higher to 8.1 years for those with five children. In St. Louis, the average was 6.6 years for the households with one child, then higher to 8.1 years for those with four children.

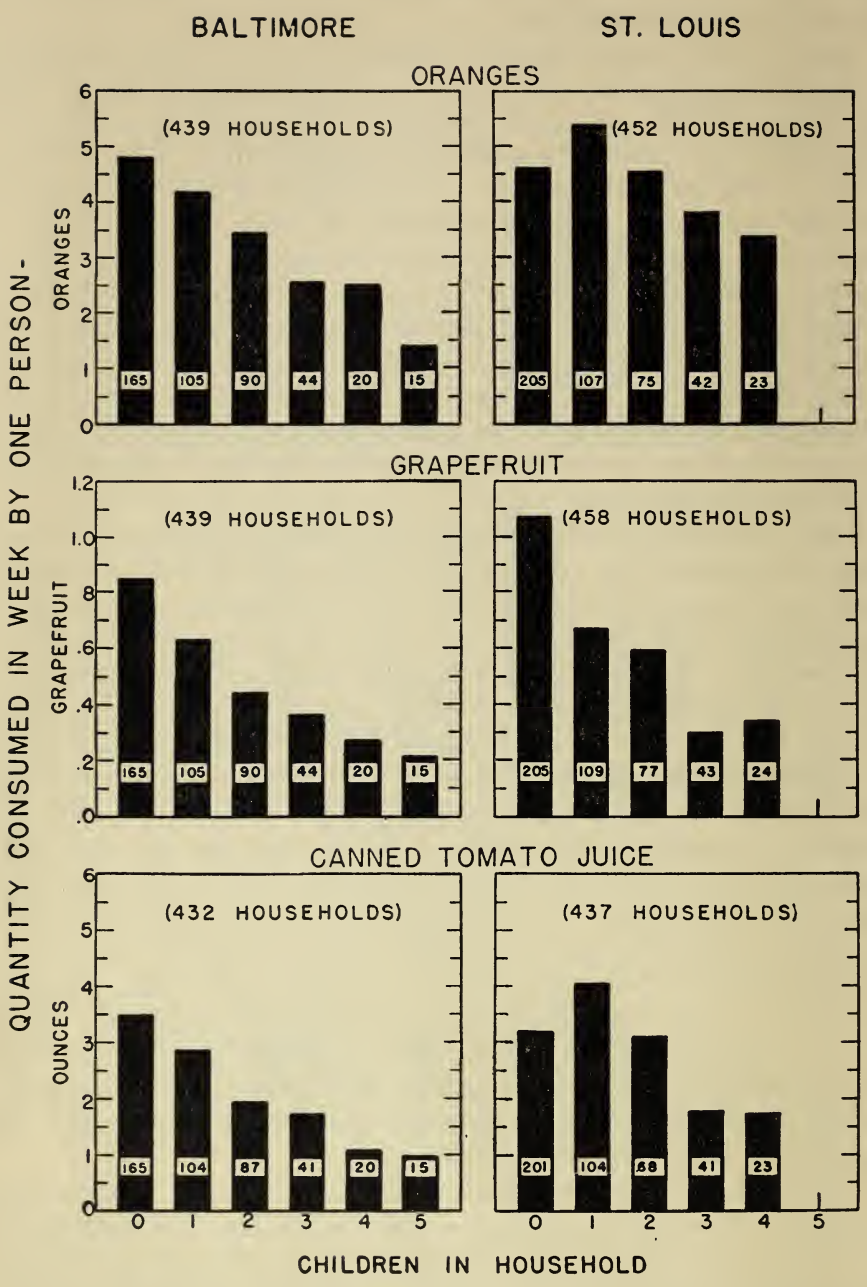


FIGURE 3.—Each of the above diagrams, dealing with households with two adults and children as designated, shows that the greater the number of children the less, on the average, was the per capita consumption of the product specified. The number of households underlying the average is stated in each case on the bar for the size class considered.

attained the same importance in the diets of manual workers as of "white collar" workers. The data also suggest that the greater orange consumption in St. Louis as compared with Baltimore, which has been repeatedly mentioned, can be attributed mainly to the relatively large quantities eaten by clerical employees in the former city.

**Grapefruit.**—The facts concerning the quantities of fresh grapefruit eaten in the week before the survey were learned for nearly 1,000 households in each city, closely conforming to the number of reports received on orange consumption. As shown in table 5, the average for St. Louis was higher than for Baltimore, on the household basis by 0.4 of a grapefruit and on the per capita by 0.13 of a grapefruit, which differences are relatively larger than were determined for oranges.

It appears from table 24, appendix B, that households using no fresh grapefruit in the week comprised approximately 53 percent of the total shown for St. Louis and 45 percent for Baltimore; otherwise, numerous quantities were stated but two grapefruit, three grapefruit, and six grapefruit were the only ones of consequence. The seemingly contradictory situation of more widespread nonconsumption, yet higher average consumption, in St. Louis is explainable on the ground that in that city the families that ate grapefruit during the week did so in generally greater quantities than in Baltimore. The consumption classes one to three grapefruit inclusive may be referred to as an illustrative instance. Of the households eating grapefruit, 54 percent in Baltimore and but 36 percent in St. Louis were represented in those particular classes.

The relation of the average per capita consumption of fresh grapefruit to size of family was essentially similar, though not quite so pronounced, as that already described for fresh oranges. Individuals in small-sized households, on the average, ate more grapefruit during the week than those in large-sized. This tendency is disclosed by the data in table 25, appendix B, and by the middle diagrams of figure 2. The average per capita quantity for the two-person households surveyed in Baltimore was 0.8 of a grapefruit and in St. Louis 1.2 grapefruit. With some irregularity, the levels varied downward, class by class. For the seven-person class the average per capita quantity of only 0.3 of a grapefruit was determined for Baltimore and 0.6 of a grapefruit for St. Louis.

Impressions about the consumption of fresh grapefruit by children in the week before the survey are obtainable from table 26, appendix B. The average per capita quantity for the homes where there were two adults and no children was much greater than for the homes with two adults and children in addition. The more children [13] the lower was the level of consumption; that tendency is shown by the middle

[13] The variation in the ages of the children was practically the same as stated in footnote 12 in reference to orange consumption.

diagrams of figure 3. For the households represented on the diagram for Baltimore, the average per capita quantity varied downward from nearly 0.9 of a grapefruit for the no-children class to 0.2 of a grapefruit for the five-children class. On the St. Louis diagram, from the no-children to the four-children class a drop from more than one grapefruit per capita to about one-third of a grapefruit is apparent. On the basis of either table 26 or the graphical evidence in figure 3, the conclusion is certain that the children in the larger families ordinarily had very little fresh grapefruit to eat.

The consumption of fresh grapefruit was apparently governed to some extent by the factor of nationality or race although the data were hardly adequate for studying the relation in satisfactory detail (table 27, appendix B). Comparatively high per capita quantities were determined for the few households in the class designated as foreign Jewish. The per capita levels for the northern European and the native white households were next highest. From 0.5 to one grapefruit was the average quantity eaten during the week by a person in the three classes mentioned. For the most part, consumption was low in other instances; a person in a Negro household ate 0.4 of a grapefruit, while the average for the eastern European class in Baltimore was only 0.33 of a grapefruit. Because of limitations of the data for some of the classes the variation according to nationality or race was not studied by size of household. It is probable, however, that the tie-up of low grapefruit consumption and large families would have been revealed again.

Occupation as a factor bearing on the per capita consumption of fresh grapefruit was considered in regard to the two-person households discussed in connection with oranges (table 18, appendix B). Greater quantities were eaten in the homes of clerical or professional workers than of manual; the difference for the week amounted to only 0.2 of a grapefruit more per capita for the households in Baltimore but to nearly one grapefruit in St. Louis. Separate review of the data for three-person households disclosed approximately the same per capita levels as for the two-person. All in all, the evidence seems to point to a more extensive eating of grapefruit at breakfast by clerical employees than by manual, particularly in St. Louis.

### Consumption of Canned Products

The facts concerning the use of the various canned products can be presented only incompletely. Except for canned tomato juice, data were not obtained extensively enough to allow sorting the households by size, number of children, nationality, or occupation of wage earners. Despite the lack of information in regard to these finer details, the material on consumption, reviewed in this section, shows

in fairly satisfactory manner the importance of each product as an article of food in Baltimore and St. Louis.

**Canned tomato juice.**—The distributions of the households according to the quantities of canned tomato juice used in the week preceding the survey are shown in table 30, appendix B. Households consuming none at all comprised 69 percent of the total in Baltimore and 78 percent in St. Louis. Aside from the nonconsumption class, no class stood out prominently; that is to say, from household to household there was a wide variation in the consumption of the juice. In Baltimore the actual quantities ranged from 8 ounces to 184 ounces and in St. Louis from 8 ounces to 224 ounces. While 14 ounces was most common, the number of households using that quantity was less than 5 percent of the total shown in table 30 for either city.

Downward variation of per capita consumption from small-sized to large-sized households was again in evidence, although somewhat less pronounced than in the case of the two fresh fruits. The per capita averages are given in table 31 and graphically presented in figure 2. The per capita levels for the two-person and three-person classes exceeded 3 ounces for the week considered. Per capita consumption was about one-half as much where eight persons lived together. There was practically no difference between the cities in respect to the over-all averages, about 2.5 ounces per capita in each instance.

Average per capita consumption of canned tomato juice was smaller for households with children than for those without. In general the greater the number of children [14] the less was the quantity consumed by one person. The basis for these statements is provided by table 32, appendix B, and the diagrams in the lower part of figure 3. The class for four persons, two adults and two children, may be chosen to illustrate the comparatively small quantities that were provided in the homes with children during the week covered by the reports. The average quantity for all persons in that class was only 1.94 ounces in Baltimore. In St. Louis the per capita level for such persons was higher, 3.10 ounces. In each instance however the quantity available per child was small indeed.

The highest per capita level of consumption of canned tomato juice for any of the classes of nationality or race in Baltimore was for the northern European and in St. Louis the foreign Jewish. Comparative data for all the classes are given in table 33. This table is featured by very low per capita averages for the Negro households in Baltimore and for the Mediterranean households in St. Louis.

Consideration of the relation of occupation to the consumption of canned tomato juice was confined to the two-person households mentioned in the discussions on the consumption of oranges and

[14] The ages of the children varied essentially as stated in footnote 12.

grapefruit. For the households classified as clerical or professional, in Baltimore the average per capita quantity was 6.7 ounces and in St. Louis 3.2 ounces, while for the households classified as manual the per capita level was 3.4 ounces in Baltimore and 4 ounces in St. Louis (table 18). These facts would indicate that, in Baltimore, the clerical or professional employees consumed more of the juice during the week than the manual, whereas in St. Louis the manual workers apparently were the heavier consumers.

**Canned pineapple juice.**—The data presented in table 35, appendix B, showing the distributions of the households according to the consumption of canned pineapple juice, reveal nonuse in the week by 89 percent of the total surveyed in Baltimore and by 95 percent in St. Louis. For the remaining households, the quantities were quite varied; in Baltimore the quantities ranged from 10 to 144 ounces and in St. Louis from 12 to 108 ounces. On the whole, the consumption of canned pineapple juice was much greater in Baltimore than in St. Louis but the averages were low for both cities. As shown in table 5, in Baltimore the consumption per household was less than 3 ounces, equivalent to 0.65 of an ounce per capita, and in St. Louis 1.7 ounces, equivalent to 0.44 of an ounce per capita.

**Other canned or bottled products.**—Each of the remaining five products covered by the survey was used in the week by few households. Canned grapefruit and canned grapefruit juice were the most widely used of these five products. For all the canned juices, the average per capita consumption was higher in Baltimore than in St. Louis, but for canned grapefruit and dairy orange beverage in St. Louis it was higher than in Baltimore (table 5). The detailed distributions of households may be found in tables 36 to 40 inclusive, appendix B.

## Explanation of Use

The answers received to the question concerning the reasons for not using larger quantities indicated that numerous factors governed the consumption of the different products. One of the most perplexing reasons to interpret was the lack of desire for more, which was frequently expressed (table 6). This explanation was especially of consequence with respect to the consumption of fresh oranges and fresh grapefruit. About 60 percent of the housewives interviewed stated that fresh oranges were being eaten in their homes in such quantities that no more were wanted.[15] Similar information was given by 45

[15] In some cases low incomes may have been at least a contributing reason why greater quantities of oranges were not consumed. Information about income was obtained on 301 of the households in Baltimore and on 225 of the households in St. Louis that were represented in the replies stating lack of desire for more. For the week preceding the survey, the average per capita income for the Baltimore households was $7.11 and for the St. Louis $8.73. These levels were low but exceeded, however, the general averages. Per capita incomes independently determined for 623 households in Baltimore and for 74 in St. Louis, were $5.63 and $6.64 respectively.

percent of the housewives in regard to fresh grapefruit.[16] The large numbers so replying suggest that some reason other than "don't desire more" may have governed their judgment to some extent at least.

TABLE 6.—*Distributions of households according to reasons for not using larger quantities, by products*

BALTIMORE

| Reasons | Fresh fruit | | Canned juices | | | | | Canned grapefruit | Dairy orange beverage |
|---|---|---|---|---|---|---|---|---|---|
| | Oranges | Grapefruit | Tomato | Pineapple | Grapefruit | Prune | Orange | | |
| | *Households* | *Households* | *Households* | *Households* | *Households* | *Households* | *Households* | *Households* | *Households* |
| Never heard of product | | | 16 | 37 | 56 | 67 | 43 | 66 | 267 |
| Object to taste | 2 | 39 | 50 | 43 | 51 | 48 | 39 | 42 | 27 |
| Prefer other fruits or juices | 15 | 79 | 154 | 206 | 215 | 209 | 196 | 203 | 114 |
| Prices too high | 89 | 51 | 32 | 33 | 26 | 27 | 34 | 24 | 22 |
| Don't desire more | 602 | 491 | 325 | 170 | 121 | 111 | 94 | 122 | 78 |
| Object to canned or bottled products | | | 96 | 148 | 180 | 183 | 224 | 190 | 173 |
| Doctor's orders | 12 | 15 | 15 | 17 | 12 | 10 | 12 | 11 | 9 |
| Cannot afford | 267 | 270 | 215 | 209 | 190 | 178 | 204 | 186 | 150 |
| Makes own | | | 7 | 1 | | 10 | 1 | | |
| Other [1] | 8 | 31 | 65 | 95 | 107 | 113 | 107 | 105 | 102 |
| Total | 995 | 976 | 975 | 959 | 958 | 956 | 954 | 949 | 942 |

ST. LOUIS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Never heard of product | | | 6 | 37 | 52 | 81 | 129 | 52 | 99 |
| Object to taste | 23 | 167 | 108 | 91 | 184 | 89 | 79 | 192 | 74 |
| Prefer other fruits or juices | 19 | 64 | 104 | 113 | 121 | 87 | 103 | 119 | 79 |
| Prices too high | 29 | 29 | 31 | 28 | 25 | 21 | 19 | 31 | 33 |
| Don't desire more | 623 | 457 | 275 | 140 | 78 | 37 | 27 | 71 | 61 |
| Object to canned or bottled products | | | 30 | 37 | 46 | 39 | 48 | 39 | 36 |
| Doctor's orders | 17 | 21 | 22 | 8 | 15 | 4 | 5 | 13 | 6 |
| Cannot afford | 254 | 202 | 194 | 182 | 154 | 126 | 148 | 154 | 170 |
| Makes own | | | 86 | 146 | 22 | 363 | 26 | 3 | 8 |
| Other [1] | 12 | 31 | 120 | 190 | 287 | 132 | 393 | 297 | 391 |
| Total | 977 | 971 | 976 | 972 | 984 | 979 | 977 | 971 | 957 |

[1] Other reasons include "uncertain quality," "prefer fresh fruit," "not interested," etc.

The percentage of households not desiring more fresh oranges or grapefruit was much higher than the percentage not desiring more of any of the other products. As table 6 is examined in detail, it becomes clear that the reasons for no greater use were more varied for the remaining products. In many instances housewives were unfamiliar with a particular product. This was especially true in Baltimore in regard to dairy orange beverage. Preference for other fruits or juices, objection to canned or bottled products, objection to taste of product, and the practice of making at home were limiting factors of varying importance. Discovery of the comparatively widespread use of home-made prune juice was a notable feature of the survey in St. Louis.

In addition to these factors, "can't afford" (regarded as distinct from unwillingness to buy as the result of "prices too high") was fre-

[16] The same reservation applies to grapefruit as to oranges. Information about income was obtained on 301 of the households in Baltimore and for 147 in St. Louis. The average per capita income for the Baltimore households was $7.12 and for the St. Louis $9.75.

quently reported as the reason for not using larger quantities. Inability to buy presumably was the result of insufficient household income. The restrictive influence of income differed with the product, being a more effective barrier to greater consumption of fresh oranges or grapefruit than to consumption of the canned juices or fruits. The proportions of households tabulated as "can't afford" ranged from 12.4 percent for prune juice in St. Louis to 26.7 percent for grapefruit in Baltimore. On the whole, the data in table 6 point to the conclusion that although income may not have been the primary limitation to the consumption of any product, it was an important one.

### Manner of Use

The replies of housewives concerning manner of use of the various products in the week preceding the interviews reveal that consumption was most common at breakfast. Eating or drinking at lunch, at dinner, and between meals, although comparatively less important, were each reported to the enumerators with notable frequency. Information about manner of use, along with that of income, was expected to throw some light on the substitution of one fruit or juice for another but the reports were numerous enough for considering this matter only with respect to consumption at breakfast. Data on fresh oranges, fresh grapefruit, fresh orange juice, and canned tomato juice provided the bases for study.

**Oranges.**—Information was obtained in regard to fresh oranges for 907 households in Baltimore and 824 in St. Louis. Many households found more than one principal use for the product in the week yet certain replies recurred sufficiently often to provide rather definite judgment as to why oranges were bought. The complete data are given in table 7.

In both cities drinking the juice at breakfast was the most common use for the fresh fruit, being reported for 391 households or 43.1 percent of those from which information about the product was obtained in Baltimore, and for 381 households, or 46.2 percent of the corresponding group, in St. Louis.

Eating oranges between meals was the second most common use in Baltimore, being recorded for 260 households (28.7 percent). That use was third in importance in St. Louis, being indicated for 170 households (20.6 percent of 824). These results for the item "between meals" constitute an interesting development in view of the fact that it was independent of drinking orange juice between meals, and of feeding the fruit or juice to infants or children between meals, or to persons who were ill.

TABLE 7.—*Distributions of households according to principal uses for products*

BALTIMORE

| Product | Households having principal use [1] of product for— | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Breakfast | Lunch | School lunch | Other lunches put up | Dinner | Between meals [2] | Alcoholic drinks | Illness | Infant feeding | Feeding of children between meals | Other purposes [3] |
| Fresh fruit: | | | | | | | | | | | |
| Oranges: | | | | | | | | | | | |
| For fruit | 239 | 24 | 18 | 37 | 17 | 260 | ------ | 5 | 3 | 2 | ------ |
| For juice | 391 | 4 | ------ | ------ | 1 | 26 | ------ | 9 | 34 | 57 | 1 |
| Grapefruit: | | | | | | | | | | | |
| For fruit | 406 | 13 | ------ | 1 | 13 | 13 | ------ | 2 | ------ | ------ | ------ |
| For juice | 131 | 2 | ------ | ------ | ------ | 3 | 1 | ------ | ------ | 2 | ------ |
| Canned juice: | | | | | | | | | | | |
| Tomato | 164 | 70 | 1 | ------ | 92 | 20 | 3 | 9 | 3 | 6 | 6 |
| Pineapple | 51 | 10 | ------ | ------ | 30 | 15 | 12 | 4 | 1 | 2 | 4 |
| Grapefruit | 33 | 5 | ------ | ------ | 3 | 14 | 2 | ------ | ------ | 1 | 1 |
| Prune | 30 | 4 | ------ | ------ | 1 | 6 | ------ | ------ | ------ | 6 | 1 |
| Orange | 6 | 1 | ------ | 1 | 12 | 3 | 2 | 2 | ------ | 7 | 1 |
| Canned grapefruit | 19 | 14 | ------ | ------ | 15 | 3 | ------ | ------ | ------ | ------ | ------ |
| Dairy orange beverage | 1 | 4 | 1 | 1 | ------ | 2 | ------ | ------ | ------ | ------ | ------ |

ST. LOUIS

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fresh fruit: | | | | | | | | | | | |
| Oranges: | | | | | | | | | | | |
| For fruit | 232 | 20 | 11 | 16 | 22 | 170 | ------ | 4 | 2 | 56 | ------ |
| For juice | 381 | 5 | 1 | 1 | 4 | 19 | ------ | 12 | 22 | 20 | 1 |
| Grapefruit: | | | | | | | | | | | |
| For fruit | 434 | 3 | ------ | ------ | 9 | 7 | ------ | 4 | ------ | 1 | ------ |
| For juice | 48 | ------ | ------ | ------ | 1 | 1 | 1 | ------ | ------ | 2 | ------ |
| Canned juice: | | | | | | | | | | | |
| Tomato | 109 | 18 | 2 | 1 | 87 | 39 | 1 | 3 | 3 | 6 | 1 |
| Pineapple | 50 | 7 | ------ | 1 | 8 | 15 | ------ | 2 | 1 | 2 | ------ |
| Grapefruit | 28 | 1 | ------ | ------ | 2 | 3 | ------ | ------ | ------ | ------ | ------ |
| Prune | 8 | ------ | ------ | ------ | ------ | 1 | ------ | 1 | 2 | 1 | 2 |
| Orange | 4 | ------ | ------ | 2 | 2 | 2 | ------ | 2 | ------ | ------ | 4 |
| Canned grapefruit | 36 | 1 | ------ | ------ | 9 | 2 | ------ | ------ | ------ | ------ | ------ |
| Dairy orange beverage | 9 | 2 | ------ | ------ | ------ | 13 | ------ | 1 | ------ | 8 | ------ |

[1] More than 1 principal use was reported by many households hence such households are represented in 2 or more columns.

[2] Between meals, as used here, indicates households in which product was consumed at times other than at the regular mealtime, but does not include those who used it in alcoholic drinks or for feeding to ill persons, children, or infants.

[3] Depending on the product, other purposes include use in soup, desserts, cocktails, or for reasons of health, etc.

Eating whole oranges at breakfast was the second most common use in St. Louis and the third in Baltimore. This is apparent from the replies for 239 households in Baltimore (26.4 percent) and for 232 of those in St. Louis (28.2 percent).

Other principal uses reported for oranges, either as fruit or as juice, in both cities were lunch at home, school lunch, other lunches put up, dinner, infant feeding, feeding of children between meals, and feeding to persons who were ill.

**Grapefruit.**—Information was secured on the principal uses of fresh grapefruit in 1 week for 557 households in Baltimore and 487 in St. Louis. While some households found more than one principal use for

the product, the data obtained are significant largely as revealing the comparative popularity of grapefruit for eating at breakfast.

A large majority of the households within the samples for both cities ate the product at breakfast; this use was reported for 406 households, or 72.9 percent of those for whom the facts were obtained in Baltimore, and for 434 households, or 89.1 percent of the corresponding group in St. Louis.

Drinking grapefruit juice at breakfast ranked second in both cities, being tabulated for 131 households (23.5 percent) in Baltimore and for 48 (9.9 percent) in St. Louis. Some other principal uses were given, but the number of housewives stating them were very few.

**Canned tomato juice.**—Principal uses for canned tomato juice in the week were reported for 322 households in Baltimore and 256 in St. Louis. In both cities, the drinking of this juice at breakfast was the most common, being reported for 164 households, or 50.9 percent of the total answering about that juice in Baltimore and for 109 households, or 42.6 percent of the corresponding total in St. Louis. Drinking tomato juice for dinner was second in importance in both cities, being reported for 92 households (28.6 percent) in Baltimore and 87 households (34.0 percent) in St. Louis. Drinking at lunch was the third most common use in Baltimore, which fact is disclosed by the replies for 70 households (21.7 percent). In St. Louis drinking between meals was third, the schedules on 39 households (15.2 percent) so indicating. A few additional uses were reported, but only a comparatively few households were involved.

**Other products.**—Since the number of households represented in table 7 for products other than fresh oranges, grapefruit, and canned tomato juice were comparatively few, little discussion concerning them is necessary. Eating at breakfast was by far the most common use reported for all the canned or bottled products except canned orange juice in Baltimore and dairy orange beverage in both cities. In Baltimore canned orange juice was drunk chiefly at dinner, and dairy orange beverage at lunch in Baltimore and between meals in St. Louis.

**Income and use at breakfast.**—Income in relation to use of oranges, grapefruit, and canned tomato juice at breakfast was first considered by taking into account households consuming but one product in the week (table 46, appendix B). For a group of 82 households in Baltimore for which the use of oranges was reported the average was $24.45 and for 66 similar households in St. Louis, $31.29. The corresponding averages for the grapefruit and canned tomato juice groups were less than the two stated.

Investigation was also directed to households consuming more than one of these products at breakfast in the week. For a group of 149 in Baltimore for which the use of both oranges and grapefruit was reported the average was $24.46, and for a similar group of 104 in St.

Louis $34.52. These averages were higher than the ones for households that used a single product (oranges, grapefruit, or canned tomato juice). However, for the households using oranges only in Baltimore there was only a slight difference. The averages were much higher where all three products were named to the enumerators, being $32.28 for 23 households in Baltimore and $52.50 for 12 in St. Louis. The present figures, although based on relatively few cases, when viewed along with those above and with the underlying distribution given in table 46, appendix B, suggest that a varied selection of fruit products probably is characteristic of families in the higher income brackets.

Income was further considered by means of two comparisons, involving use at breakfast of (1) oranges and grapefruit as fresh fruit, and (2) fresh orange juice, fresh grapefruit juice, and canned tomato juice. These comparisons were made on the basis of the numbers of households at successive levels of income. The data for the particular groups are presented graphically in figure 4.

Households most frequently recorded as using either oranges or grapefruit as fresh fruit at breakfast were those with weekly incomes from $15 to $20 in Baltimore and from $10 to $15 in St. Louis. The average incomes, which were higher than those given above, were about the same for both groups. Households consuming grapefruit were more numerous than those consuming oranges. This tendency held true at all incomes, except for the selected households in Baltimore receiving less than $5 each.

As shown by the lower diagrams of figure 4, the prevailing incomes of households consuming any of the three juices, fresh orange in both cities, and fresh grapefruit or canned tomato in Baltimore, at breakfast tended to be higher than in the foregoing cases (table 45). The differences were conspicuous with respect to fresh orange juice; households with incomes from $25 to $30 were more numerous than any others using this juice within the sample for Baltimore and those with incomes from $20 to $25 were the foremost group within that for St. Louis. Moreover, the practice of drinking fresh orange juice at breakfast was more widespread at all income levels than was that of drinking either of the other juices, except for the selected households in St. Louis receiving from $10 to $15. Whatever inference might be made regarding substitution consequently would apply only to fresh grapefruit juice and canned tomato juice.

In Baltimore there was a tendency for households of low income, roughly those receiving less than $16, to use fresh grapefruit juice rather than canned tomato juice. At the income of $16, either one was consumed. At medium and comparatively high income levels, consumption of canned tomato juice was more widespread, except that the same number of households was reported for each of the

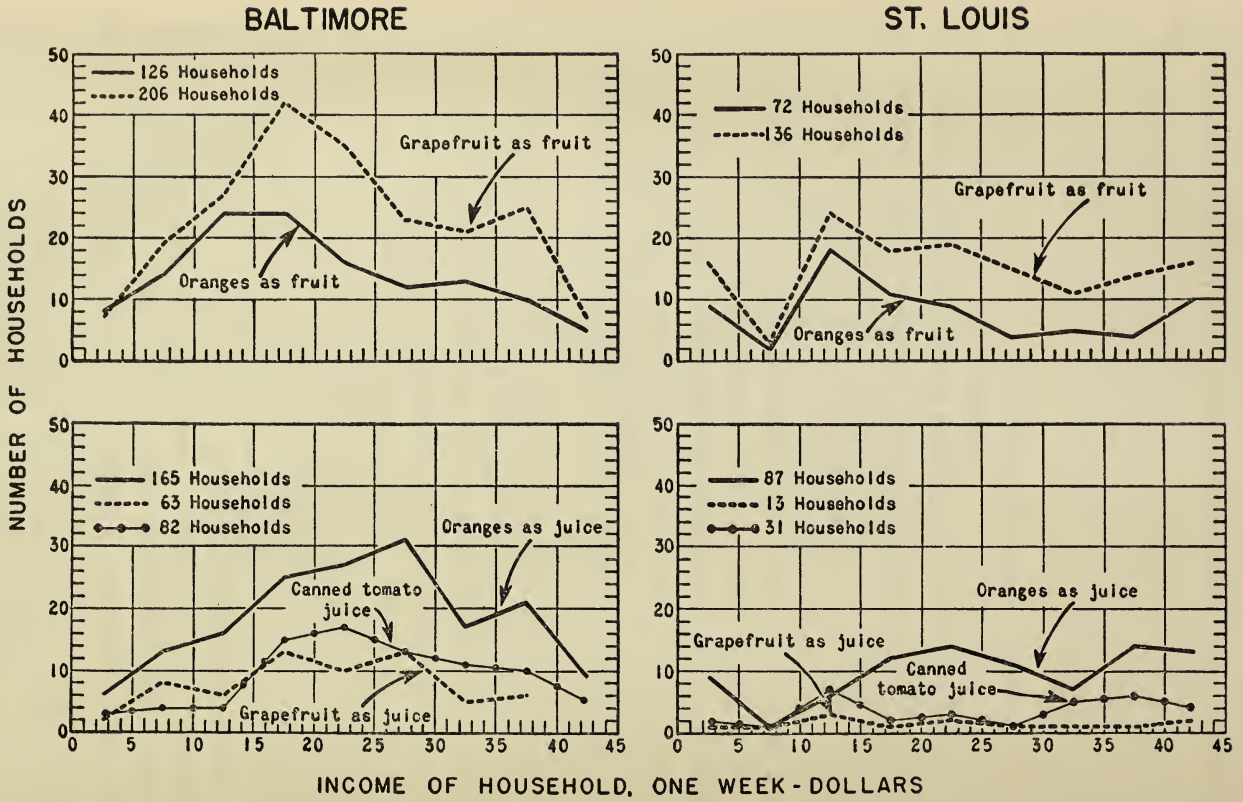


FIGURE 4.—In the upper diagrams the number of households using oranges as fresh fruit at breakfast is compared at each level of income with the number similarly using grapefruit. The lower diagrams show the corresponding distributions with respect to three juices: Fresh orange, fresh grapefruit, and canned tomato juice. At practically every level of income fresh grapefruit was used at breakfast more widely than fresh oranges, and fresh orange juice more widely than the other two juices.

two products at the income of $27.50. Definite conclusions cannot be made as to whether substitution was truly indicated at incomes of both $16 and $27.50 or whether the condition observed was merely an incident arising from small samples. Similar comparisons between these particular juices are hardly possible for St. Louis as very few cases of the use of fresh grapefruit juice were recorded there for any one income class. Households most frequently recorded for consumption of each of these juices in St. Louis were those with weekly incomes from $10 to $15.

### Relation of Income to Consumption

Evidence presented in the preceding sections indicates that the quantity of a particular food consumed by a household was governed not only by the income but by other factors as well. The samples were not large enough to determine precisely how much of the observed variation in consumption in any case was associated specifically with income. Since only rough approximations were feasible, the investigation was extended along comparatively simple lines. Considering oranges, grapefruit, and canned tomato juice one by one the relationship between the quantity used and income was studied separately by size of household.

**Oranges and grapefruit.**—The higher the household income for the week before the survey, the greater, on the average, was per capita consumption of oranges or grapefruit for the same period.[17] This tendency is disclosed by the distributions in tables 41 and 42, appendix B, and by figures 5 and 6 which were constructed from these tables, excluding households with more than 5 persons and those with incomes higher than $50.

Per capita consumption for an individual household within a size class usually was either above or below the average per capita quantity at a specified income. The tendency for per capita consumption to be greater at higher household incomes persisted, however, despite such deviations.

As a rule average per capita consumption of either product differed less widely for successive levels of low household income than for successive levels of medium or high income, but this trait was not pronounced. Both the quantity indicated for a given income by the average tendency and the deviations detected for individual households varied among the size classes; hence, the degree of relationship was not the same throughout.

Statistical tests indicate that the proportion of the total variation in consumption that could be attributed to variation in income ranged

[17] The average price paid for an orange was the same in Baltimore and St. Louis, 2.25 cents. The average price for a grapefruit was 5.32 cents in Baltimore and 5.67 cents in St. Louis.

approximately from 41 to 65 percent [18] for oranges and from 25 to 70 percent for grapefruit. Within these limits the proportion fluctuated irregularly, there being no apparent association with size of household. For oranges the average for the entire group of selected households (four classes) in Baltimore was 50 percent and in St. Louis 54 percent. For grapefruit the average for Baltimore was 36 percent and for St. Louis 54 percent. All these proportions are estimates and should not be accepted as too precise.

**Canned tomato juice.**—In regard to canned tomato juice the results of these special studies are only inferential, as the number of households at a given income level in most size classes was too small for analysis. The following summary is presented with that understanding.

Relationships between per capita consumption and household income appeared to exist on the whole in about the same degree as for oranges and grapefruit in the case of Baltimore, but were much less pronounced than for these products in the case of St. Louis [19] (table 43). The proportions of the variations in consumption indicated as being explained by variations in income ranged from 0.4 percent up to 64 percent, with remarkably wide fluctuations occurring from class to class and from city to city. The average for the entire group of selected households (four classes) in Baltimore was 48 percent and for that in St. Louis but 13 percent.

The statement that the higher the household income for the week before the survey, the greater, on the average, was per capita consumption for the same period, seemingly would be applicable to 2-, 3-, and 4-person classes within the Baltimore sample and for 2- and 4-person classes within the sample for St. Louis.

The inherent nature of the correlation, where its existence was indicated, differed from that previously described for oranges and grapefruit. Whereas the per capita consumption of either of these products varied less widely for successive levels of low household income than for successive levels of medium or high income, that trait was not discovered for canned tomato juice. Average per capita

[18] In the case of 4-person households consuming oranges, to take an example, it is estimated that about 44 percent of the variation among the 119 households (table 41) with respect to the number of oranges eaten could be accounted for by differences in income. Correspondingly for the 103 households in St. Louis about 56 percent of the variation in the quantity was due to differences in income.

[19] The average price paid for 14-ounces of tomato juice was 8.1 cents in Baltimore and 7.7 cents in St. Louis.

FIGURE 5 [*Opposite*].—Average per capita consumption of oranges in 1 week is shown for households of each designated size and level of income. In general, the higher the income the greater was the per capita consumption, this tendency existing in approximately the same degree for the selected households in Baltimore as in St. Louis. The number of households underlying each average per capita consumption is stated on the bar for the corresponding income level.

# ORANGES

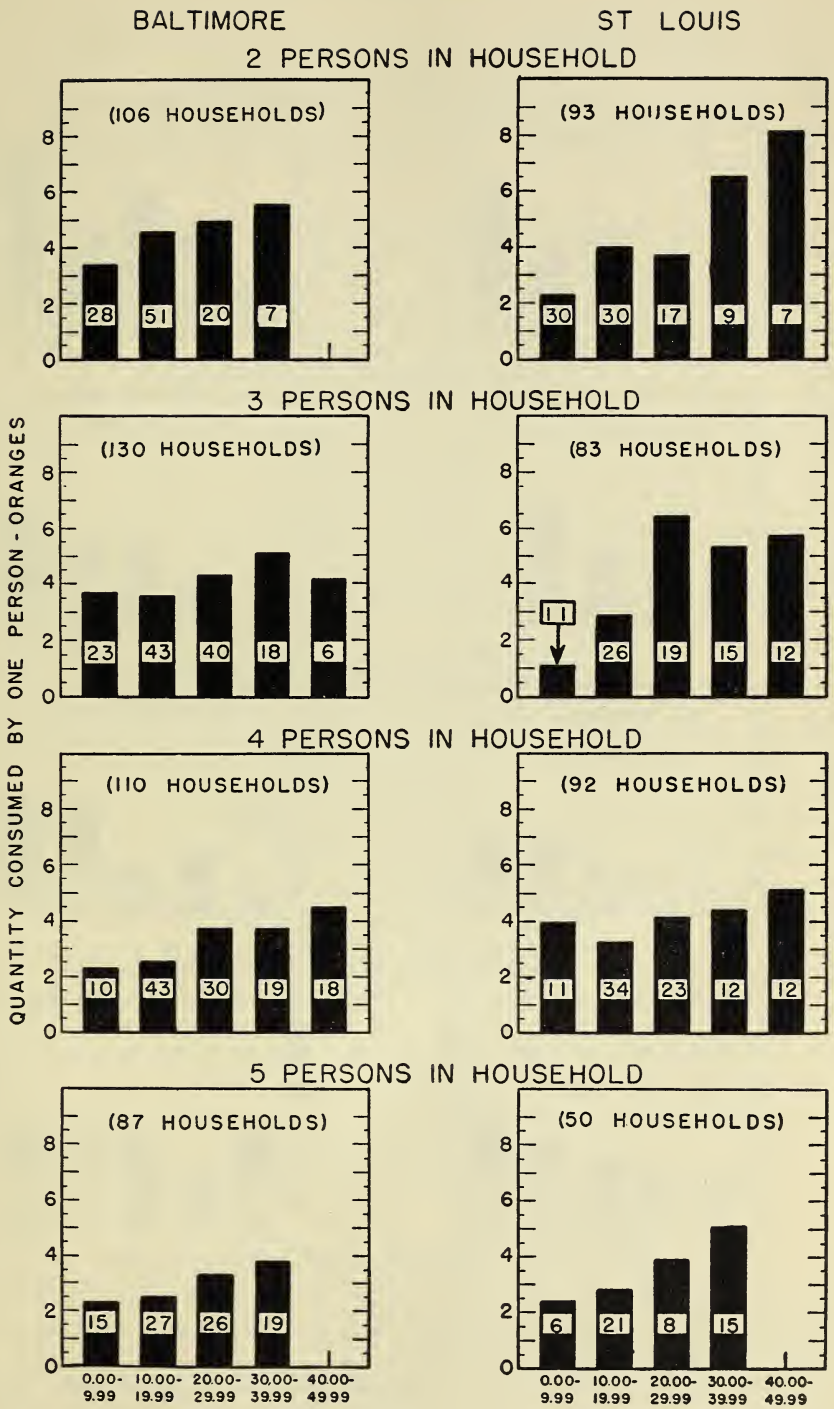


FIGURE 5.

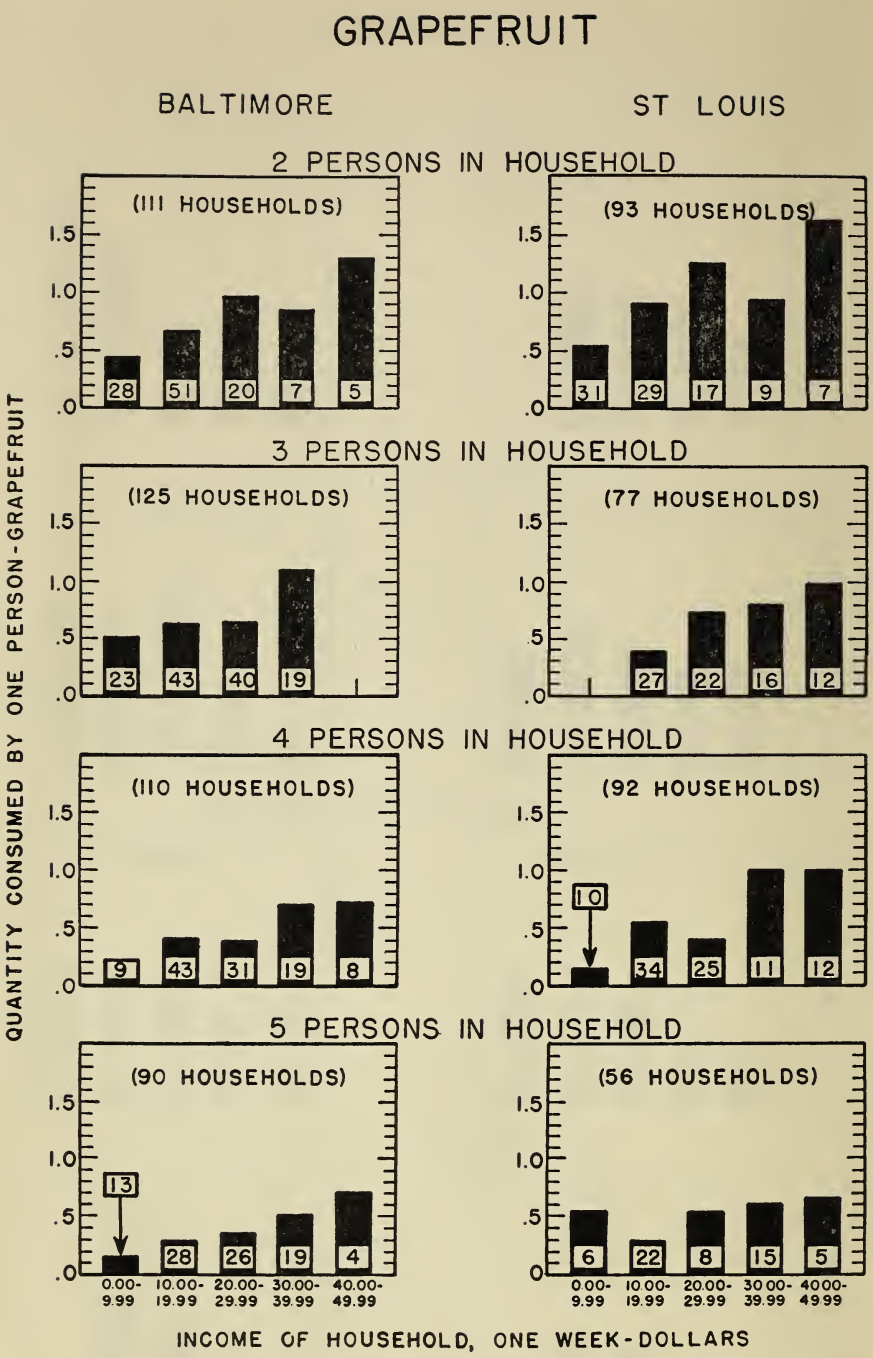


FIGURE 6.—Average per capita consumption of grapefruit in 1 week is shown for households of each designated size and level of income. In general, the higher the income the greater was per capita consumption, this tendency being more pronounced for the selected households in St. Louis than for those in Baltimore. The number of households underlying each average per capita consumption is stated on the bar for the corresponding income level.

consumption tended to be upward with income by the same number of ounces for each additional dollar.

**Income and cost of living.**—Separately from the facts about the consumption of particular fruits or juices, the survey provided information concerning the extent that money received from wages or other sources was an indication of family expenditure for food and for rent. Data on 349 households in Baltimore and 227 in St. Louis were the bases of judgment.

The amount of money spent for food by the average household with a comparatively high income was much greater than the amount spent by the one with a low income. This was true for both city groups (table 8). The amount paid out for food at the income of $55 (center of class interval, $50 to $60) for the week preceding the survey was more than double that paid out at the very low income of less than $10. At the same time, however, wider differences existed for successive levels of low income than for successive levels of high income. This condition presumably signifies that, as measured by the factor of cost, there was a tendency for the diets of households belonging to income classes above the level of $30, for example, to be more similar in quality than the diets of households belonging to the lower income classes.

TABLE 8.—*Average expenditures for food and rent and proportions of income spent for these items* [1]

[Households for which information was obtained on all three items, income, food, and rent]

BALTIMORE

| Income of household, 1 week | Number of households | Expenditure in 1 week for— | | Proportion of income spent for— | |
|---|---|---|---|---|---|
| | | Food | Rent | Food | Rent |
| | | *Dollars* | *Dollars* | *Percent* | *Percent* |
| Under $10 | [2] 47 | 4.87 | 3.13 | 65.2 | 50.7 |
| $10.00–$19.99 | 160 | 7.74 | 3.70 | 52.2 | 26.1 |
| $20.00–$29.99 | 75 | 11.35 | 5.11 | 46.1 | 21.8 |
| $30.00–$39.99 | 45 | 12.73 | 5.40 | 37.2 | 17.0 |
| $40.00–$49.99 | 11 | 13.91 | 7.73 | 32.3 | 16.8 |
| $50.00–$59.99 | 11 | 14.09 | 8.64 | 28.6 | 16.8 |
| Average or total | 349 | 9.17 | 4.43 | 49.3 | 26.7 |

ST. LOUIS

| | | | | | |
|---|---|---|---|---|---|
| Under $10 | [2] 15 | 5.27 | 3.13 | 90.5 | 61.1 |
| $10.00–$19.99 | 94 | 7.73 | 3.18 | 50.5 | 20.4 |
| $20.00–$29.99 | 56 | 9.29 | 4.25 | 38.6 | 18.5 |
| $30.00–$39.99 | 32 | 11.31 | 5.19 | 33.4 | 16.7 |
| $40.00–$49.99 | 17 | 13.47 | 7.00 | 29.9 | 16.3 |
| $50.00–$59.99 | 13 | 13.15 | 7.31 | 24.8 | 14.3 |
| Average or total | 227 | 9.20 | 4.25 | 44.8 | 21.4 |

[1] See table 44 for the average per capita expenditures for the same selected households represented in this table but redistributed according to per capita income.

[2] Of the households receiving less than $10, 23 in Baltimore and 8 in St. Louis spent more than their incomes for food and rent.

The average household with a high income paid out more money for rent than did the one with a low income (table 8). There the analogy with food cost ends, for throughout the entire range of income, proceeding from low to high, expenditure for rent tended to be greater and greater by a constant amount for each unit difference in income. According to estimates that have been made from the data, for each $1 more received by one household as compared with another, the additional expenditure for rent was 10.6 cents for the group in Baltimore and 10.2 cents for the group in St. Louis.

It should be emphasized that not all the households in either of the city groups corresponded to the central tendencies with respect to expenditures for food and rent. At a specified income there was actually a broad diversity in the budgetary provisions for these items of living cost on the part of individual households. Some spent more, others less, than the average. So much was this type of variation in evidence that it would be impracticable from the information collected to work out a typical expenditure pattern for food or rent for households at any specific level of income, except in terms of averages as in table 8.

Consideration of the group in either city as a whole leaves the rather definite impression that in many cases the amount of money received for services performed by the wage earners was the predominating factor in determining how much should be paid out for meals and lodging. On the other hand, perhaps in as many as one-third to one-half of the cases, this was not true. The nature of the nonincome factors, of course, was not ascertainable from the reports. Custom, personal preferences, early environment, education—in short, those immeasurable influences on living standards in any population—apparently operated to govern the expenditures of those households that spent more or less than the average amounts for their incomes.

Tendencies in regard to food and rent that have been uncovered by many previous investigations are discernible in the last two columns of table 8. On the average, a household with a high income expends a smaller proportionate amount either for food or for rent than does a household with a low income. Knowledge of these tendencies is often responsible for the contention that the percentage of income spent for either item is a good indication of the standard of living of a family.

Distinction should be drawn again between the central tendency and the individual situation. In reference to table 8, the opinion may be ventured that the standard of living of most of the households with weekly incomes above $35 was better than that of households with lower incomes. There were undoubtedly numerous cases, however, where the percentage share of the budget taken up by food or rent was practically the same for households within the higher income brackets

as for those within the lower. It would be hardly safe to infer that in such cases an equal standard of living was necessarily indicated.

Income and the costs of food and rent have been examined in terms of individual households, conforming to the practice ordinarily followed in considerations of standard of living. But the general tenor of the relations is unchanged when the per capita basis is used for interpretation. Evidence to this effect is supplied when the 349 households in Baltimore and the 227 in St. Louis are redistributed by per capita income and the corresponding average per capita expenditures determined (table 44, appendix B).

Per capita expenditures for food and rent tended to be higher for households with high per capita incomes than for those with low. In cases where the per capita income for the week was $15 or more, the per capita expenditures for food and rent were about three times the expenditures in cases where the per capita income was less than $2.50. Comparing one household with another, for each additional dollar per capita income received the corresponding additional outlay for food averaged 25 cents in Baltimore and 22½ cents in St. Louis. At all per capita income levels per capita expenditures for food exceeded those for rent. The per capita averages were practically identical for the two cities, being in Baltimore $2.43 for food and $1.31 for rent, and in St. Louis $2.44 and $1.33, respectively. The detailed data may be found in table 44.

While facts bearing on cost of food and rent were learned from the survey, no information was obtained on the separate item of total living expenses. It is, therefore, of interest to mention some results of a study made by the Cost of Living Section, United States Bureau of Labor Statistics,[20] on 324 wage-earning and lower-salaried clerical families in 13 representative cities in Northeastern and Southeastern United States. All data were recorded in the spring of 1935.

Average per capita consumption of fresh fruits and juices at the highest economic level (total living expense of family, $500 or over) was found to be roughly 2.5 times that at the lowest (total expense, under $300). For dried and canned fruits, the per capita consumption at the highest level was 2.8 times that at the lowest, the per capita consumption of potatoes and sweetpotatoes 1.25, that of tomatoes 1.6, and that of leafy vegetables 1.7. For all other fresh vegetables the per capita consumption at the highest level was 2.25 times that at the lowest level. The relation of quantity consumed to living cost appeared to be less pronounced for other canned and dried vegetables, being only 1.15 times greater at the highest level than at the lowest. An outstanding fact throughout was that the greater the expenditure

[20] See paper entitled "Food Consumption at Different Economic Levels," by Faith M. Williams, in the Monthly Labor Review, April 1936.

for all consumer goods the greater was the consumption of the so-called protective foods, those rich in minerals and vitamins.

**Need for repeated surveys.**—Since the households were surveyed but once there is no direct basis for evaluating the changes that would occur in their orange consumption with changes in income. The relationships were sufficiently pronounced, however, to indicate that in future investigations the requisite data should be obtained more than once. In view of the frequently expressed doctrine that more of certain foods would be eaten by families in the low wage-earning brackets if such families were elevated to the middle or high brackets, projects designed to discover the exact nature of adjustments in budgets, coincident with differences in economic conditions, are especially needed. Information acquired from such projects could throw desired light on the role of income. If the present results can be accepted as a criterion, so far as oranges and grapefruit and possibly canned tomato juice are concerned, inquiry into the merits of that doctrine should be approached from two separate angles. The first objective would be to find out how much average per capita consumption would be raised, and the second to determine what the increase would mean in terms of individual households.

Leaving the technical phases of the results on income, the discussion may turn to items concerned with the act of buying. Within this category are those which dealt especially with purchasing habits. The extent that housewives manifested knowledge of brands, or were disposed to favor products having particular trade names, sources of purchase, and quantities usually acquired at one time, need to be considered in turn.

## Preferences for Brands

Attention is drawn to two questions that were asked by the enumerators: "Do you ordinarily buy by brand?" "What brands do you use?" In nearly all cases where housewives answered the first one affirmatively actual names of brands were given; consequently the replies to the second are believed to provide satisfactory factual information for revealing preferences. The replies to the questions: "What other brands can you name?" and "What brands did you use last week?" also were tabulated. The results agreed reasonably well with those given in tables 9 and 10, hence could have served as the basis of the present discussion.

The practice of purchasing fresh oranges by brand was found to be more common in St. Louis than in Baltimore. As shown in table 9, in St. Louis 47.4 percent of all housewives interviewed, and in Baltimore but 26.5 percent, stated that they ordinarily bought oranges that way. At the same time there was little familiarity with brands of grapefruit, which were named specifically by not over 3.2 percent

of the housewives in St. Louis and 2.1 percent in Baltimore. But the story about preferences for definite types of the two fruits is not told completely by these proportions, since some additional cases were discovered where products grown in particular States were habitually sought. If one considers the figures given in the footnotes 2 and 3, to table 9, purchasing oranges on one basis or the other was in evidence in more than one-half (56.5 percent) of the sample for St. Louis, and for slightly less than one-third (31.7 percent) of that for Baltimore. For grapefruit the corresponding proportions (footnotes 3 and 4, table 9) were 10.6 percent and 5.8 percent, respectively.

TABLE 9.—*Number of housewives reported as ordinarily purchasing by brand, by products* [1]

| Product | Housewives in— | | Housewives as proportion of total interviewed in— | |
|---|---|---|---|---|
| | Baltimore | St. Louis | Baltimore | St. Louis |
| | | | *Percent* | *Percent* |
| Fresh fruit: | | | | |
| Oranges | [2] 268 | [3] 482 | 26.5 | 47.4 |
| Grapefruit | [4] 21 | [5] 33 | 2.1 | 3.2 |
| Canned juice: | | | | |
| Tomato | 345 | 248 | 34.1 | 24.4 |
| Pineapple | 150 | 114 | 14.8 | 11.2 |
| Grapefruit | 60 | 47 | 5.9 | 4.6 |
| Prune | 46 | 21 | 4.5 | 2.1 |
| Orange | 30 | 14 | 3.0 | 1.4 |
| Canned grapefruit | 62 | 44 | 6.1 | 4.3 |
| Dairy orange beverage | 9 | 82 | .9 | 8.1 |

[1] Based on a different item of the schedule than that underlying table 4.
[2] Not including 53 housewives who bought oranges grown in particular States.
[3] Not including 93 housewives who bought oranges grown in particular States.
[4] Not including 38 housewives who bought grapefruit grown in particular States.
[5] Not including 75 housewives who bought grapefruit grown in particular States.

Despite the fact that the practice of purchasing fresh oranges by brand was further developed in St. Louis (table 9), only 7 brands were named to the enumerators in that city, as compared with 15 in Baltimore (table 10). This difference loses meaning, however, by the disclosure that two nationally advertised brands in the one city and two in the other (U. S. No. 1 in all cases),[21] covered the preferences of more than 90 percent of the housewives concerned. Occasionally another brand of Grade 1 was found in use; seven of these additional brands were named in Baltimore but only one in St. Louis.

Brands of fresh grapefruit reported to the enumerators numbered seven in Baltimore and three in St. Louis. Although of questionable import because of the smallness of the groups involved (table 9), it may be mentioned that in each city more than 90 percent of the housewives who were accustomed to buying grapefruit by brand favored

[21] U. S. No. 1 consists of citrus fruit which is mature, well colored, well formed, free from interior and exterior visual damage.

U. S. No. 2 consists of citrus fruit which is mature, slightly colored, slightly misshapen, and free from interior and exterior visual damage.

Grade 1. Five brands of that grade were recorded in Baltimore and two in St. Louis.

Except for dairy orange beverage, a bottled product, the practice of purchasing canned products by brand was more widespread in Baltimore than in St. Louis, notably so in respect to canned tomato juice. In Baltimore about one-third (34.1 percent) of all housewives interviewed, and in St. Louis one-fourth (24.4 percent), bought tomato juice in that way. With the exception of pineapple juice, for which the proportions exceeded 10 percent of the sample in each city, table 9 suggests that the habit of buying the other canned juices or canned grapefruit by brand had been only slightly cultivated. The wide difference in the reports from the two cities on dairy orange beverage probably signifies that promotion of sales, and interest in that beverage, had not yet extended to Baltimore and the Atlantic seaboard to the same degree as in St. Louis and the Middle West.

TABLE 10.—*Number of national and other brands of each specified product or grade named by housewives interviewed*

| Product or grade | Number of brands named in— | | | | | |
|---|---|---|---|---|---|---|
| | Baltimore | | | St. Louis | | |
| | National[1] | Other | Total | National[1] | Other | Total |
| Fresh fruit: | | | | | | |
| Oranges— | | | | | | |
| U. S. No. 1 | 3 | 6 | 9 | 3 | ---- | 3 |
| U. S. No. 2 | ---- | 3 | 3 | ---- | 3 | 3 |
| Grade unknown | ---- | 3 | 3 | ---- | 1 | 1 |
| Total | 3 | 12 | 15 | 3 | 4 | 7 |
| Grapefruit— | | | | | | |
| U. S. No. 1 | 3 | 2 | 5 | 2 | ---- | 2 |
| U. S. No. 2 | ---- | 2 | 2 | ---- | ---- | ---- |
| Grade unknown | ---- | ---- | ---- | ---- | 1 | 1 |
| Total | 3 | 4 | 7 | 2 | 1 | 3 |
| Canned juice: | | | | | | |
| Tomato | 9 | 32 | 41 | 9 | 26 | 35 |
| Pineapple | 5 | 6 | 11 | 3 | 14 | 17 |
| Grapefruit | 6 | 12 | 18 | 3 | 13 | 16 |
| Prune | 3 | 5 | 8 | 2 | 4 | 6 |
| Orange | 5 | 6 | 11 | 3 | 7 | 10 |
| Canned grapefruit | 5 | 14 | 19 | 5 | 12 | 17 |
| Dairy orange beverage | ---- | 4 | 4 | ---- | 9 | 9 |

[1] As used here, the term "national" refers to packers' or manufacturers' brands and "other" to private or distributors' brands.

Decided preferences existed for particular brands of the canned products. As many as 41 brands of canned tomato juice were named to the enumerators in Baltimore, and 35 in St. Louis (table 10), but the choices of more than two-thirds of the groups of housewives in each city (table 9) were accounted for by 6 brands. Two of them were widely used in both cities; about 40 percent of the group in Baltimore, and 48 percent of that in St. Louis, selected one or the other. Eleven

brands of pineapple juice were reported from Baltimore, and 17 from St. Louis, but 3 covered the preferences of about 90 percent of the housewives who supplied the facts. Owing to the smallness of the groups represented, similar comparisons for the remaining products are of doubtful significance. The information immediately following is presented therefore merely in the interest of completeness.

In Baltimore 8 brands of canned prune juice were recorded for 46 housewives who ordinarily bought that juice by brand (table 9), and 37 preferred one certain brand. In St. Louis, although 6 brands were reported, that same one was preferred by 12 out of 21 housewives. In the case of dairy orange beverage, information received from 9 housewives in Baltimore revealed 4 brands about equally in favor, whereas in St. Louis one particular brand in a list of 9 was the choice of 49 of 82 housewives. Ten or more brands of canned grapefruit juice, canned orange juice, and canned grapefruit, respectively, apparently were available in each city (table 10). For any of these products no single brand was outstandingly popular.

Brands of canned products manufactured and distributed by organizations advertising on a national scale made up the purchases of at least 50 percent of each group of housewives in Baltimore who bought these products by brand. In St. Louis the proportions exceeded 50 percent for three products: Tomato juice, pineapple juice, and prune juice. The situation is of especial interest in reference to tomato juice, and possibly also to pineapple juice, since the practice of buying either by brand was comparatively well developed. In Baltimore 55.7 percent of the 345 housewives reported in table 9, and in St. Louis 69.0 percent of 248, preferred national brands. In the case of pineapple juice, in Baltimore 96.7 percent of 150 housewives, and in St. Louis 89.5 percent of 114, favored such brands.

Many of the reported brands were not national. Tabulated as "other" were those not specifically conforming to the definition of national (footnote table 10), including many chain-store, local and nationally advertised brands that were manufactured by certain organizations but distributed by others. It was impracticable, however, to make subclassifications, because of frequent overlapping and insufficient acquaintance with many of the brands; several authorities who were consulted could not agree on the proper classifications.

### Other Purchasing Habits

**Source of purchase.**—The relative importance of food stores, fruit stands, and hucksters as sources of purchase of fresh oranges and grapefruit is indicated by the replies to the question: "Where did you buy product last week?" There is no occasion for comparing the remaining products in respect to this detail as all but dairy orange

beverage were acquired at food stores. Six housewives in Baltimore, and 24 in St. Louis, who answered concerning dairy orange beverage, stated that they obtained it from dairies.

Food or grocery stores [22] ranked first in each city as the place of purchase of both fresh fruits. However, these stores were relatively more popular in St. Louis than in Baltimore. Of the total households for whom the facts were tabulated for oranges in St. Louis (table 17 and figure 7), 75.0 percent were supplied from that source, contrasting with only 43.7 percent in Baltimore. For grapefruit the proportions were practically the same as for oranges, being 73.1 percent in St. Louis and 44.7 percent in Baltimore.

Fruit stands were second in importance, and hucksters third. Of the housewives replying to the question in Baltimore 34.2 percent purchased oranges at fruit stands, against 12.6 percent in St. Louis. For grapefruit, in Baltimore 31.5 percent and in St. Louis 14.1 percent, patronized these stands. Housewives who bought oranges from hucksters made up 21.8 percent of the total answering in Baltimore, and 6.7 percent in St. Louis. Grapefruit were obtained from hucksters by 23.5 percent of the group in Baltimore and by 8.0 percent of that in St. Louis.

**Source of purchase and nationality.**—It is pertinent to inquire if the differences related were associated with differences of race or nationality of households. One interesting development appears in the fact that in St. Louis, of the native white housewives replying to the question, 78.7 percent bought oranges from food stores and 76.9 percent grapefruit (tables 23 and 28, appendix B), while in the case of either product food stores were the source for 89.5 percent of the Negro housewives who replied. In Baltimore 43.3 percent of the native white housewives answering about oranges, and 45 percent of those answering about grapefruit, purchased at such stores, but of the Negro housewives, 58.9 percent of those replying regarding oranges and 57.5 percent of those replying regarding grapefruit, bought from food stores.

In Baltimore the majority of the housewives considered as either eastern European or Mediterranean bought both oranges and grapefruit from fruit stands. In that city 20 of 45 housewives of eastern European classification stated that oranges were bought at such stands. Sixteen out of 28 in the Mediterranean group make a like report. In the case of grapefruit 7 of the 20 housewives of eastern

[22] As used in the text the term "food store" refers to grocery or other stores where fruit in fresh or canned form, or both, was not the only product sold. "Fruit stand" is used in a broad sense, signifying push-carts, market stalls, and in some cases even stores, where fruit was the sole product available. In Retail Distribution, vol. III, Census of Business 1935, issued by the U. S. Department of Commerce, a different classification is adopted. That publication reports a total of 13,557 food stores of various types for Baltimore, including 2,532 combination stores (grocery or meats), 783 grocery stores (without meats) and 510 fruit stores and vegetable markets; and a total of 4,741 food stores for St. Louis, but without the break-down as for Baltimore.

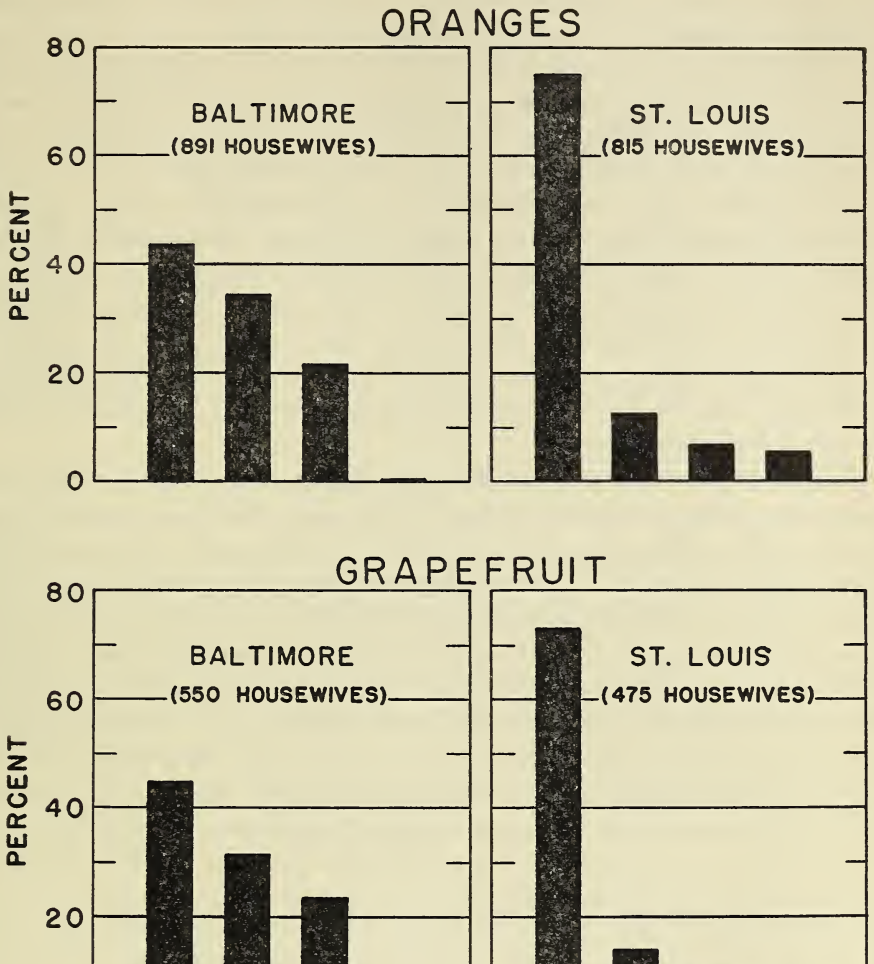


FIGURE 7.—Upper diagram shows proportion of specified number of housewives in Baltimore and St. Louis who purchased oranges in a single week at each place of purchase stated. Lower diagram shows the corresponding proportions for grapefruit. Food stores were the most popular in each city but were in relatively greater favor in St. Louis than in Baltimore.

European extraction who answered the question, and 11 of 20 listed as Mediterranean, bought at fruit stands. In Baltimore about 40 percent of either the foreign Jewish or northern European housewives purchased oranges or grapefruit from food stores, about one-third from hucksters, and one-fourth from fruit stands. Although the numbers involved in some instance were small, all these additional facts point to the conclusion that in Baltimore the place of purchase was, in part at least, identified with the factor of nationality.

In St. Louis most housewives of all nationalities, except foreign Jewish, obtained oranges and grapefruit from food stores. Of the foreign Jewish housewives who reported about oranges, 57.1 percent patronized fruit stands, while of those who reported about grapefruit 54.5 percent did likewise. Aside from this tendency on the part of the foreign-born Jewish group in St. Louis, the evidence indicates that nationality had little to do with the choice of place of buying of the two products considered.

**Source of purchase and income.**—A further matter of investigation was the possibility that the source of purchase of oranges or grapefruit was governed to some extent by income. Judgment of this matter is provided by table 11. Considering the Baltimore sample and confining attention to households with incomes less than $10 for the week, it appears that more households obtained oranges from fruit stands than from food stores or hucksters. For those with incomes less than $20, practically the same number were supplied from food stores as from fruit stands, and less than half as many such households bought from hucksters as from either food stores or fruit stands. For households of incomes below $30, practically no difference existed between the two latter sources, with the number tabulated for either one nearly double that for hucksters. Food stores were in relatively much greater favor among households of higher levels of income in Baltimore. In St. Louis these stores were by far the most common source for households throughout the range of income.

Similar tendencies were revealed by the data on grapefruit. In Baltimore more of the households with incomes of less than $10 a week purchased grapefruit from fruit stands than purchased this product from food stores or hucksters. However, about the same number of households with incomes of less than $20 obtained the product from food stores as from fruit stands, which was more than twice the total tabulated for hucksters. Drawing the comparison on the basis of incomes of less than $30, food stores and fruit stands were represented about equally, and hucksters were of less importance. Food stores were in much greater favor among households of higher levels of income in Baltimore. As in the case of oranges, at practically all levels of income, food stores in St. Louis met with little competition as the source of purchase of grapefruit.

TABLE 11.—*Distribution of households purchasing fresh oranges and grapefruit from specified sources, by income*

ORANGES

| Income of household | Households in Baltimore obtaining product from— | | | Households in St. Louis obtaining product from— | | |
|---|---|---|---|---|---|---|
| | Food stores | Fruit stands | Hucksters | Food stores | Fruit stands | Hucksters |
| $0–$4.99 | 6 | 9 | 8 | 18 | 6 | 2 |
| $5–$9.99 | 17 | 25 | 7 | 6 | ---- | ---- |
| $10–$14.99 | 42 | 28 | 11 | 50 | 6 | ---- |
| $15–$19.99 | 41 | 42 | 19 | 29 | 15 | 2 |
| $20–$24.99 | 25 | 29 | 17 | 28 | 5 | 6 |
| $25–$29.99 | 22 | 22 | 26 | 27 | 5 | 2 |
| $30–$34.99 | 20 | 11 | 11 | 24 | 3 | 1 |
| $35–$39.99 | 17 | 8 | 19 | 18 | 3 | 2 |
| $40–$44.99 | 7 | 4 | 2 | 20 | 4 | 2 |
| $45–$49.99 | 4 | 4 | 4 | 8 | 2 | 1 |
| $50–$99.99 | 12 | 9 | 3 | 33 | 4 | 1 |
| $100–$149.99 | 2 | 1 | 1 | 2 | ---- | ---- |
| $150–$199.99 | ---- | ---- | ---- | ---- | ---- | ---- |
| $200–$249.99 | ---- | ---- | ---- | ---- | ---- | ---- |
| Total | 215 | 192 | 128 | 263 | 53 | 19 |

GRAPEFRUIT

| | | | | | | |
|---|---|---|---|---|---|---|
| $0–$4.99 | 3 | 3 | 3 | 9 | 2 | 1 |
| $5–$9.99 | 9 | 13 | 2 | 2 | ---- | 1 |
| $10–$14.99 | 17 | 12 | 3 | 21 | 5 | 1 |
| $15–$19.99 | 20 | 25 | 12 | 12 | 5 | 1 |
| $20–$24.99 | 19 | 16 | 13 | 14 | 2 | 3 |
| $25–$29.99 | 9 | 9 | 16 | 10 | 4 | 2 |
| $30–$34.99 | 15 | 7 | 9 | 10 | 2 | 1 |
| $35–$39.99 | 15 | 3 | 15 | 12 | 1 | 1 |
| $40–$44.99 | 2 | 2 | 1 | 13 | 4 | ---- |
| $45–$49.99 | 4 | 3 | 3 | 5 | 2 | 1 |
| $50–$99.99 | 8 | 6 | 3 | 24 | 4 | 1 |
| $100–$149.99 | 2 | 1 | 1 | 2 | ---- | ---- |
| $150–$199.99 | ---- | ---- | ---- | ---- | ---- | ---- |
| $200–$249.99 [1] | ---- | 1 | ---- | ---- | ---- | ---- |
| Total | 123 | 101 | 81 | 134 | 31 | 13 |

[1] The highest income reported in Baltimore was $200.

**Source of purchase and price.**—Supplementary to the foregoing facts, the variation of price with source of purchase of oranges and grapefruit may be reviewed briefly. The average price of oranges bought from food stores by 367 households in Baltimore was 27.5 cents a dozen, and for 531 in St. Louis 27.9 cents (table 47). Oranges obtained from hucksters by 189 households in Baltimore cost, on the average, 26.9 cents a dozen and those obtained from hucksters by 50 households in St. Louis, 26.7 cents a dozen, while the price per dozen from fruit stands averaged 26.3 cents for 283 households in Baltimore and for 92 in St. Louis. These figures indicate that in either city the average cost of a dozen oranges bought from fruit stands was less than that of a dozen bought from either food stores or hucksters. The cost to households in Baltimore was less than the cost to households in St. Louis; the average was 26.9 cents for 839 households in Baltimore and 27.6 cents for 673 households in St. Louis.

The data for grapefruit show that in Baltimore, the average price for one unit was 6.2 cents for 229 households who bought from food stores, 5.0 for 163 who purchased from fruit stands, and 4.8 cents for 121 who bought from hucksters (table 47). In St. Louis, the cost of a grapefruit averaged 6.0 cents for 299 households supplied by food stores, 5.0 cents for 59 patronizing fruit stands, and 6.3 cents for 34 tabulated as purchasing from hucksters. In Baltimore the price per grapefruit was less when the fruit was bought from hucksters than when it was bought from either food stores or fruit stands; in St. Louis the lowest price was at fruit stands. The price paid by households in Baltimore was less, on the average, than that in St. Louis; for 513 households in Baltimore it was 5.5 cents a grapefruit and for 392 in St. Louis 5.9.

**Usual quantities.**—Comparatively few housewives ordinarily bought a large number of oranges or grapefruit. One dozen was most common for oranges; a dozen at a time was the usual quantity for 70 percent of all housewives in either Baltimore or St. Louis from whom the facts on that product were obtained (table 12). One-half dozen was second in favor, being recorded for 16.0 percent in Baltimore, and for 13.6 percent in St. Louis. For grapefruit, purchasing habits in regard to volume were much more varied, a condition reflected by the absence of such a heavily prevailing quantity as in the case of oranges. Nevertheless, two grapefruit at a time was the rule in Baltimore for 32.4 percent, and in St. Louis for 39.3 percent, of those housewives who supplied the information. Three grapefruit was the second most common quantity in each city, the replies of 25.2 percent of the group in Baltimore, and 21.5 percent of that in St. Louis, so indicating.[23]

The survey also disclosed a remarkably wide variation in the quantity of canned tomato juice ordinarily purchased. No less than 47 different amounts apparently were being purchased in Baltimore, ranging all the way from 8 up to 360 ounces, and 44 amounts in St. Louis, ranging from 10 to 432 ounces. In neither city, however, was the same number of ounces specified by as many as 10 percent of the housewives providing the facts. The nearest approach to a prevailing quantity in Baltimore was 14 ounces (table 12), but even this quantity was not impressively favored. Cans of 14-ounce content were bought by 27 housewives, or by 9.2 percent within a group of 295. In St. Louis likewise no really outstanding preference existed, although it is worth mentioning that 15 housewives, representing 8.2 percent of a group of 184, each acquired 72 ounces (in most cases three 24-ounce

[23] The detailed distribution of housewives, by quantity ordinarily bought, is omitted from this report. Aside from the information given in the text and in table 12, the tabulations revealed many different customary amounts but the number of housewives associated with any particular one was too few to call for special attention.

cans) at a time. On the whole, there was an evident disposition to buy slightly more tomato juice on a single visit to a retail store in St. Louis than in Baltimore. In St. Louis less than 41 ounces, and in Baltimore less than 32 ounces, were recorded for 50 percent of the housewives answering; in St. Louis less than 64 ounces, and in Baltimore less than 50 ounces were recorded for 75 percent.

TABLE 12.—*First and second most common quantities ordinarily purchased, with the proportions of housewives stating such quantities, by products*

BALTIMORE

| Product | Most common quantity | Second most common quantity | Total housewives replying about quantity | Proportion of housewives, each buying— | |
|---|---|---|---|---|---|
| | | | | Most common quantity | Second most common quantity |
| Fresh fruit: | | | | *Percent* | *Percent* |
| Oranges, each | 12 | 6 | 967 | 70.1 | 16.0 |
| Grapefruit, do | 2 | 3 | 762 | 32.4 | 25.2 |
| Canned juice: | | | | | |
| Tomato, ounces | 14 | [1] 20 | 295 | 9.2 | 8.1 |
| Pineapple, do | 36 | 12 | 108 | 24.1 | 21.3 |
| Grapefruit, do | 36 | [2] 18 | 54 | 20.4 | 13.0 |
| Prune, do | 32 | 10 | 48 | 35.4 | 22.9 |
| Orange, do | 24 | 36 | 35 | 31.4 | 20.0 |
| Canned grapefruit, do | 20 | 40 | 50 | 38.0 | 26.0 |
| Dairy orange beverage, do | 8 | 32 | 15 | 40.0 | 33.3 |

ST. LOUIS

| | | | | | |
|---|---|---|---|---|---|
| Fresh fruit: | | | | | |
| Oranges, each | 12 | 6 | 884 | 69.7 | 13.6 |
| Grapefruit, do | 2 | 3 | 585 | 39.3 | 21.5 |
| Canned juice: | | | | | |
| Tomato, ounces | 72 | 28 | 184 | 8.2 | 7.6 |
| Pineapple, do | 36 | 18 | 58 | 15.5 | 10.3 |
| Grapefruit, do | 36 | 18 | 28 | 50.0 | 10.7 |
| Prune, do | 16 | 32 | 13 | 30.8 | 23.1 |
| Orange, do | [3] | [3] | 13 | 15.4 | 15.4 |
| Canned grapefruit, do | 20 | 40 | 39 | 30.8 | 23.1 |
| Dairy orange beverage, do | 32 | 16 | 87 | 73.6 | 16.1 |

[1] Tie between 20 ounces and 30 ounces; an equal number of housewives (24) was recorded for each quantity.
[2] Tie between 18 ounces and 24 ounces; an equal number of housewives (7) was recorded for each quantity.
[3] 10 ounces, 24 ounces, and 30 ounces were reported by two housewives each.

Similar wide variation occurred with regard to canned pineapple juice. In Baltimore 108 housewives reported (table 12) 20 amounts, ranging from 8 to 432 ounces, while in St. Louis 23 amounts, from 9 to 336 ounces, were in use among 58 housewives. Unit prices on several cans usually were less than on one alone. As a result the habit of buying 36 ounces, chiefly two 18-ounce cans, was reported a little more frequently than any other; 24.1 percent in Baltimore, and 15.5 percent in St. Louis ordinarily purchased that number of ounces at a time. Single cans were next in favor, 12 ounces being reported for 21.3 percent of the group in Baltimore and 18 ounces for 10.3 percent of that in St. Louis. There was scattering use of each of the other amounts.

The data collected on the customary quantities of the remaining five products are of value only as showing the situation obtaining in the spring of 1936, and should not be interpreted as conclusively revealing buying tendencies. It is sufficient to say that the most common and second most common quantities, listed in table 12, were of more than usual importance among the small groups of housewives answering. Conceivably, if these products had been in much wider use or had been better known, different habits in respect to amounts acquired at a time might have been recorded by the enumerators. The sizes of the groups represented in the table indicate that this possibility applies rather indiscriminately to all the canned or bottled products considered in the survey, with the exception of tomato juice. The narrow distribution of any of them could be singled out for comment.

Canned prune juice is an example. Out of the 1,012 housewives interviewed in Baltimore, 48 reported ordinary purchases of that juice and out of the 1,017 interviewed in St. Louis but 13 replied. The reasons that prompted housewives not to buy larger quantities of this juice are discussed on page 19, along with the explanations for the other products. Reasons advanced by the housewives for not using larger quantities perhaps accounted in part for the meager numbers of homes in table 12, but the enumerators believed that it was primarily due to unfamiliarity with these canned or bottled products.

**Selection on basis of quality.**—Methods employed by housewives in selecting oranges or grapefruit were determinable from items on the schedule concerning means of judging the quality of fresh fruit. The data are contained in table 48. "Merchant's opinion" was the leading single basis of buying, except for grapefruit in Baltimore, although a great many relied on the brand name or made selections according to the weight or the softness of the fruit. "Appearance" was also advanced as the guide in many cases. The large majority of housewives when buying oranges or grapefruit failed to select one kind of product for fruit and another for juice. In the few cases where distinction was reported (table 49) in Baltimore the primary basis was "appearance" and in St. Louis both "size and appearance."

## Appendix A—Methods of Procedure

The field work for the survey was organized with a view to anticipating special situations that might be encountered in the interviews. Before making any contacts whatever in quest of information from housewives the enumerators spent 2 days familiarizing themselves with the schedule and with written instructions for methods of questioning. A few trial interviews were held. The preliminary experiences brought out the need for occasionally rephrasing certain questions and asking them a second time in order to record accurately the facts for a given household. The schedule was so devised that an enumerator could quickly tell whether or not correct replies were being received; the answers for certain items afforded checks on those for other items. Leading queries were avoided throughout.

The schedule was comprehensive, having 20 items, some with detailed subitems. Entries for a single household, however, were not so numerous as the length would indicate. This was chiefly because the very first question required a "yes" or "no" answer, and if the answer was "no" for any of the nine products, the enumerator did not need to ask further questions about that product through the first 11 items. On the average, households had used but three products, consequently the recording was shortened considerably.

Despite the use of measures designed to shorten interviews so far as possible, the number of detailed queries produced much more information than is ordinarily obtained in food surveys. Only heads of households or housewives were interrogated. The enumerator would first emphasize that there was nothing compulsory about furnishing data. Willingness to assist in the filling out of the schedule was regarded entirely as voluntary cooperation, and that was so stated at the outset of each visit. Furthermore, it was emphasized that all answers would be treated as confidential with respect to the individual home and that neither the name of the person replying nor the income of the household would be published.

The program laid out for the enumerators called for visits to households in areas throughout the two cities. A quota of schedules was allotted to each ward in proportion to the population according to the Census of 1930. On the assumption that a central location in the ward usually would signify a typical neighborhood, from two to eight squares (depending on the population) were selected and marked off on a map of the city. The enumerators were instructed to seek

interviews with housewives or heads of households first on the inside of a designated square, then on the outside, and then one block in either direction on one of the streets bounding the square. In a few cases where, after this procedure, the completed schedules were short of the number desired for the ward, additional squares were chosen. Schedules turned in for 1 day by individual enumerators ranged up to 20, averaging a little over 7 in both Baltimore and St. Louis.

City_____ CONFIDENTIAL

Schedule for Citrus Consumption Survey

[Consumers' Counsel Division, Agricultural Adjustment Administration, U. S. Department of Agriculture]

Name_____ Number in household_____ Income of household last week $____
Street address___ Adults (16 years and over)_____ Monthly rent for home $_____
Type of dwelling: Children: Amount spent for food last week $__
Private home__ Under 2 years_____ Number of meals regularly served
Apartment____ 2-5 years inclusive_____ daily:
Nationality_____ 6–15 years inclusive_____

Present occupation of adults:
Number of clerical or professional workers_____
Number of manual workers_____
Number housekeepers_____
Number unoccupied_____

| | Adults | Children under 16 years |
|---|---|---|
| Breakfast_____ | | |
| Lunch_____ | | |
| Dinner_____ | | |
| Lunches put up_____ | | |

| Item | Fresh fruit | | Canned juice | | | | | Canned grapefruit | Dairy orange beverage |
|---|---|---|---|---|---|---|---|---|---|
| | Oranges | Grapefruit | Tomato | Pineapple | Grapefruit | Prune | Orange | | |
| 1. Have you ever used product? | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No |
| 2. When did you first use product? | | | | | | | | | |
| 3. When did you last use product? | | | | | | | | | |
| 4. How often per month do you use product? | | | | | | | | | |
| 5. What brands did you use last week? | x x x<br>x x x<br>x x x | x x x<br>x x x<br>x x x | | | | | | | |
| 6. How many units were used last week? | | | | | | | | | |
| a. small | | | | | | | | | |
| b. large | | | | | | | | | |
| c. | | | | | | | | | |
| Enumerator, leave space blank. | | | | | | | | | |
| 7. Where did you buy product last week: food store (S), drug store (D), city fruit stand (F), roadside stand (R)? | | | | | | | | | |
| 8. What prices were paid per unit last week? | | | | | | | | | |
| a. small | | | | | | | | | |
| b. large | | | | | | | | | |
| c. | | | | | | | | | |
| Enumerator, leave space blank. | | | | | | | | | |
| 9. Was consumption last week greater or less than usual? | | | | | | | | | |

| Item | Fresh fruit | | Canned juice | | | | | Canned grapefruit | Dairy orange beverage |
|---|---|---|---|---|---|---|---|---|---|
| | Oranges | Grapefruit | Tomato | Pineapple | Grapefruit | Prune | Orange | | |
| 10. State chief (P) and other (O) uses last week | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| for each product: | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| a. Breakfast | | | | | | | | | |
| b. Lunch | | | | | | | | | |
| c. School lunch | | | | | | | | | |
| d. Other lunches put up | | | | | | | | | |
| e. Dinner | | | | | | | | | |
| f. Between meals, exclusive of g, h, i | | | | | | | | | |
| g. Alcoholic drinks | | | | | | | | | |
| h. Illness | | | | | | | | | |
| i. Infant feeding | | | | | | | | | |
| j. Other (specify) | | | | | | | | | |
| 11. For each use checked above for fresh fruit indicate after P or O | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| if consumed as fruit | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| (F) or juice (J) | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| 12. State chief (P) and other (O) reasons for not using larger quantities: | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x | x x x |
| a. Never heard of product | | | | | | | | | |
| b. Object to taste | | | | | | | | | |
| c. Prefer other fruits (or juices) | | | | | | | | | |
| d. Prices too high | | | | | | | | | |
| e. Don't desire more | | | | | | | | | |
| f. Object to canned or bottled products | | | | | | | | | |
| g. Uncertain quality | | | | | | | | | |
| h. Doctor's orders | | | | | | | | | |
| i. Other reasons (specify) | | | | | | | | | |
| 13. Do you ordinarily buy by brand? | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No | Yes No |
| 14. What brands do you use? | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 15. What other brands can you name? | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 16. How much do you ordinarily buy at one time? | | | | | | | | | |

| Item | Fresh fruit | |
|---|---|---|
| | Oranges | Grapefruit |
| 17. Have you any means of judging the quality of fresh fruit? | Yes No | Yes No |
| 18. State basis of judging quality of fresh fruit: | x x x | x x x |
| a. Size | | |
| b. Weight | | |
| c. Color | | |
| d. Softness | | |
| e. Merchant's opinion | | |
| f. Brand | | |
| g. Other | | |
| 19. Do you buy different quality of product for fresh fruit than for juice? | Yes No | Yes No |
| 20. State basis of distinction between purchases of products for fresh fruit and for juice: | x x x | x x x |
| | x x x | x x x |
| a. Size | | |
| b. Variety | | |
| c. Appearance | | |

Date _____

_____
Enumerator

## Appendix B—Supplementary Tables

TABLE 13.—*Time of original use of each specified product*

BALTIMORE

| Product [1] | Households first using product in year or period designated— | | | | | | | | Total households reported |
|---|---|---|---|---|---|---|---|---|---|
| | 1936 [2] | 1935 | 1934 | 1933 | 1932 | 1931 | 1921 to 1930 | Prior to 1921 | |
| Canned juice: | | | | | | | | | |
| Tomato | 18 | 64 | 66 | 51 | 25 | 43 | 67 | 3 | 337 |
| Pineapple | 11 | 73 | 39 | 41 | 15 | 21 | 5 | ---- | 205 |
| Grapefruit | 7 | 40 | 36 | 29 | 10 | 15 | 3 | ---- | 140 |
| Prune | 10 | 40 | 18 | 13 | 6 | 6 | 1 | ---- | 94 |
| Orange | 5 | 21 | 14 | 12 | 5 | 7 | 3 | ---- | 67 |
| Canned grapefruit | 8 | 23 | 31 | 23 | 16 | 15 | 7 | ---- | 123 |
| Dairy orange beverage | 6 | 17 | 7 | 1 | 1 | ---- | ---- | ---- | 32 |
| **ST. LOUIS** | | | | | | | | | |
| Canned juice: | | | | | | | | | |
| Tomato | 18 | 61 | 69 | 59 | 32 | 12 | 42 | 2 | 295 |
| Pineapple | 18 | 50 | 36 | 16 | 3 | 1 | 2 | 1 | 127 |
| Grapefruit | 7 | 37 | 12 | 7 | 5 | ---- | 3 | ---- | 71 |
| Prune | 8 | 19 | 6 | 5 | 2 | ---- | ---- | ---- | 40 |
| Orange | 13 | 19 | 4 | 7 | ---- | 2 | ---- | ---- | 45 |
| Canned grapefruit | 10 | 31 | 23 | 11 | 10 | 3 | 6 | 1 | 95 |
| Dairy orange beverage | 16 | 99 | 12 | 2 | ---- | 1 | ---- | ---- | 130 |

[1] Fresh oranges and fresh grapefruit are omitted as data were not obtained on the periods elapsing since these products were first used.

[2] From Jan. 1, 1936, to dates housewives were interviewed. The survey was made in Baltimore Apr. 13–25 and in St. Louis Apr. 27–May 9.

TABLE 14.—*Time of most recent use of each specified product*

BALTIMORE

| Product | Households last using product in year or period designated— | | | | | | Total households reported |
|---|---|---|---|---|---|---|---|
| | 1936 | | | | 1935 | Prior to 1935 | |
| | Within 1 week of visit by enumerator | 1 to 2 weeks preceding visit by enumerator | January 1 to within 2 weeks of visit by enumerator | Total, January 1 to day of interview [1] | | | |
| Fresh fruit: | | | | | | | |
| Oranges | 909 | 31 | 30 | 970 | 13 | 3 | 986 |
| Grapefruit | 566 | 88 | 96 | 750 | 44 | 12 | 806 |
| Canned juice: | | | | | | | |
| Tomato | 337 | 63 | 97 | 497 | 51 | 7 | 555 |
| Pineapple | 127 | 37 | 80 | 244 | 43 | 7 | 294 |
| Grapefruit | 60 | 27 | 48 | 135 | 35 | 6 | 176 |
| Prune | 44 | 13 | 21 | 78 | 32 | 3 | 113 |
| Orange | 35 | 18 | 24 | 77 | 19 | 6 | 102 |
| Canned grapefruit | 51 | 18 | 52 | 121 | 42 | 8 | 171 |
| Dairy orange beverage | 9 | 6 | 4 | 19 | 11 | 4 | 34 |
| **ST. LOUIS** | | | | | | | |
| Fresh fruit: | | | | | | | |
| Oranges | 836 | 50 | 48 | 934 | 16 | 6 | 956 |
| Grapefruit | 497 | 68 | 105 | 670 | 35 | 20 | 725 |
| Canned juice: | | | | | | | |
| Tomato | 280 | 66 | 83 | 429 | 28 | 6 | 463 |
| Pineapple | 92 | 38 | 61 | 191 | 27 | 1 | 219 |
| Grapefruit | 41 | 18 | 30 | 89 | 26 | ---- | 115 |
| Prune | 15 | 6 | 26 | 47 | 9 | 3 | 59 |
| Orange | 17 | 7 | 18 | 42 | 10 | 3 | 55 |
| Canned grapefruit | 51 | 15 | 43 | 109 | 39 | 6 | 154 |
| Dairy orange beverage | 43 | 12 | 30 | 85 | 71 | 1 | 157 |

[1] See footnote 2, table 13.

TABLE 15.—*Customary frequency of use of each specified product*

| Product | Households within designated class of frequency of use— | | | | | | | Total households | Proportion of entire sample represented by total households [2] |
|---|---|---|---|---|---|---|---|---|---|
| | 1–5 times monthly | 6–10 times monthly | 11–20 times monthly | Daily [1] | Regular [1] | Irregular | Unestimated | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **BALTIMORE** | | | | | | | | | |
| Fresh fruit: | | | | | | | | | *Percent* |
| Oranges | 21 | 2 | 11 | ------ | 814 | 124 | 17 | 989 | 97.7 |
| Grapefruit | 22 | 5 | 5 | ------ | 496 | 279 | 18 | 825 | 81.5 |
| Canned juice: | | | | | | | | | |
| Tomato | 21 | 6 | 6 | ------ | 268 | 245 | 7 | 553 | 54.6 |
| Pineapple | 20 | 2 | 1 | ------ | 86 | 183 | 5 | 297 | 29.3 |
| Grapefruit | 6 | 1 | 2 | ------ | 46 | 119 | 4 | 178 | 17.6 |
| Prune | 3 | ------ | ------ | ------ | 44 | 45 | 4 | 96 | 9.5 |
| Orange | 3 | 1 | ------ | ------ | 33 | 61 | 4 | 102 | 10.1 |
| Canned grapefruit | 7 | 1 | 2 | ------ | 41 | 117 | 6 | 174 | 17.2 |
| Dairy orange beverage | 1 | 2 | ------ | ------ | 6 | 17 | 1 | 27 | 2.7 |
| **ST. LOUIS** | | | | | | | | | |
| Fresh fruit: | | | | | | | | | |
| Oranges | 14 | 10 | 15 | 218 | 514 | 146 | 60 | 977 | 96.1 |
| Grapefruit | 19 | 19 | 12 | 83 | 315 | 227 | 78 | 753 | 74.0 |
| Canned juice: | | | | | | | | | |
| Tomato | 32 | 20 | 16 | 18 | 150 | 196 | 65 | 497 | 48.9 |
| Pineapple | 19 | 6 | 8 | 4 | 44 | 121 | 48 | 250 | 24.6 |
| Grapefruit | 8 | 2 | 1 | 2 | 21 | 80 | 27 | 141 | 13.9 |
| Prune | 3 | 1 | ------ | 3 | 4 | 33 | 12 | 56 | 5.5 |
| Orange | 2 | ------ | ------ | 3 | 9 | 30 | 20 | 64 | 6.3 |
| Canned grapefruit | 10 | ------ | 3 | 4 | 28 | 114 | 32 | 191 | 18.8 |
| Dairy orange beverage | 8 | 1 | 1 | 9 | 15 | 79 | 50 | 163 | 16.0 |

[1] The figures on habitual consumption, shown in the first column of table 4, are totals of those in the first 5 columns of the present table; the figures on nonhabitual consumption, in the second column of table 4, are totals of those in columns (6) and (7) of the present table. In cases where statements were not forthcoming relative to an actual number of times monthly, enumerators would ask if product was used regularly or irregularly. Unfortunately in Baltimore the enumerators considered households using products daily as regular, along with households that were properly so classified; therefore the frequencies for Baltimore in column (5) correspond to those for St. Louis in columns (4) and (5) taken together.

[2] The proportions in this column are percentages of all households surveyed, 1,012 in Baltimore and 1,017 in St. Louis.

TABLE 16.—*Households whose incomes were reported, and number thereof using specified product in 1 week, distributed according to income*

BALTIMORE

| Income of household, 1 week | Households whose incomes were reported | Households using— | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Fresh fruit | | Canned juices— | | | | | Canned grapefruit | Dairy orange beverage |
| | | Oranges | Grapefruit | Tomato | Pineapple | Grapefruit | Prune | Orange | | |
| $0–$4.99 | 27 | 23 | 9 | 7 | 1 | | | 1 | 1 | |
| $5–$9.99 | 64 | 50 | 25 | 13 | 4 | 4 | 2 | | 4 | |
| $10–$14.99 | 104 | 83 | 34 | 21 | 5 | 3 | 4 | 5 | 5 | |
| $15–$19.99 | 119 | 104 | 58 | 27 | 10 | 5 | 7 | 3 | 4 | 2 |
| $20–$24.99 | 81 | 75 | 50 | 33 | 12 | 9 | 5 | 3 | 7 | 2 |
| $25–$29.99 | 78 | 73 | 36 | 24 | 10 | 4 | 1 | 2 | 5 | 2 |
| $30–$34.99 | 43 | 42 | 31 | 18 | 10 | 5 | 6 | 3 | 4 | |
| $35–$39.99 | 45 | 44 | 33 | 18 | 7 | 6 | 1 | 4 | 1 | |
| $40–$44.99 | 17 | 14 | 7 | 8 | 2 | 1 | | | 2 | |
| $45–$49.99 | 14 | 14 | 11 | 8 | 6 | 3 | | | 1 | |
| $50–$99.99 | 25 | 25 | 20 | 20 | 8 | 3 | 1 | 1 | 3 | |
| $100–$149.99 | 5 | 5 | 4 | 3 | 2 | 1 | | | | |
| $150–$199.99 | | | | | | | | | | |
| $200 [1] | 1 | 1 | 1 | | 1 | | | | | |
| Total | 623 | 553 | 319 | 200 | 78 | 44 | 27 | 22 | 37 | 6 |

ST. LOUIS

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $0–$4.99 | 60 | 28 | 12 | 7 | 1 | | 1 | | 1 | |
| $5–$9.99 | 14 | 7 | 3 | 4 | 1 | 1 | | 3 | 3 | |
| $10–$14.99 | 92 | 60 | 29 | 23 | 4 | 3 | 3 | 1 | | 5 |
| $15–$19.99 | 62 | 50 | 21 | 14 | 2 | | 1 | 1 | | 3 |
| $20–$24.99 | 48 | 42 | 21 | 10 | 1 | 2 | | 1 | 2 | |
| $25–$29.99 | 48 | 39 | 19 | 8 | 4 | 1 | | 2 | 1 | 1 |
| $30–$34.99 | 34 | 31 | 15 | 15 | 5 | 2 | 1 | | 2 | 3 |
| $35–$39.99 | 28 | 27 | 17 | 10 | 5 | 2 | 1 | | 2 | 3 |
| $40–$44.99 | 32 | 30 | 19 | 12 | 2 | 1 | 2 | | 1 | 1 |
| $45–$49.99 | 13 | 12 | 9 | 5 | 9 | 2 | | | 2 | |
| $50–$99.99 | 40 | 40 | 30 | 16 | 1 | | | | | 1 |
| $100–$149.99 | 3 | 3 | 2 | 2 | | | | | | 1 |
| Total | 474 | 369 | 197 | 126 | 35 | 14 | 9 | 8 | 14 | 18 |

[1] A single household with an income of $200 used oranges, grapefruit, and canned pineapple juice.

TABLE 17.—*Source of purchase of each specified product used in 1 week*

BALTIMORE

| Product | Households obtaining product from— | | | | | | Total households |
|---|---|---|---|---|---|---|---|
| | Food stores | City fruit stands | Hucksters | Hucksters and food stores | Food stores and fruit stands | Dairies | |
| Fresh fruit: | | | | | | | |
| Oranges | 389 | 305 | 194 | 1 | 2 | | 891 |
| Grapefruit | 246 | 173 | 129 | | 2 | | 550 |
| Canned juice: | | | | | | | |
| Tomato | 303 | 13 | 2 | | | 3 | 321 |
| Pineapple | 114 | 5 | 1 | | | | 120 |
| Grapefruit | 53 | 2 | | | | | 55 |
| Prune | 38 | 1 | | | | | 39 |
| Orange | 34 | 1 | | | | | 35 |
| Canned grapefruit | 45 | 1 | | | | | 46 |
| Dairy orange beverage | 1 | | | | | 6 | 7 |

ST. LOUIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fresh fruit: | | | | | | | |
| Oranges | 611 | 103 | 55 | 22 | 24 | | 815 |
| Grapefruit | 347 | 67 | 38 | 10 | 13 | | 475 |
| Canned juice: | | | | | | | |
| Tomato | 243 | 2 | | | 1 | | 246 |
| Pineapple | 84 | 1 | | | | | 85 |
| Grapefruit | 36 | | | | | | 36 |
| Prune | 11 | | | | | | 11 |
| Orange | 11 | | | | | | 11 |
| Canned grapefruit | 41 | 1 | | | | | 42 |
| Dairy orange beverage | 14 | 1 | | | | 24 | 39 |

TABLE 18.—*Fresh oranges, fresh grapefruit, and canned tomato juice: Average per capita consumption for stated number of 2-person households,*[1] *by occupation of head of household*

BALTIMORE

| Occupation | Number of households | Average consumption per person of— | | |
|---|---|---|---|---|
| | | Fresh oranges | Fresh grapefruit | Canned tomato juice |
| | | *Oranges* | *Grapefruit* | *Ounces* |
| Clerical or professional | 32 | 5.2 | 1.14 | 6.7 |
| Manual | 72 | 5.1 | .92 | 3.4 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| Clerical or professional | 75 | 5.9 | 1.65 | 3.2 |
| Manual | 64 | 4.2 | .75 | 4.0 |

[1] Households each composed of 1 housewife and 1 employed adult male.

TABLE 19.—*Fresh oranges: Distribution of households according to quantity used in 1 week and size of household*

BALTIMORE

| Quantity used by household (oranges) | Households each with number of persons specified— | | | | | | | | | Total households | Proportion of total, excluding 0 class, using not more than stated quantity | Proportion of total using not more than stated quantity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more[1] | | | |
| | | | | | | | | | | | *Percent* | *Percent* |
| 0 | 1 | 28 | 16 | 13 | 14 | 11 | 9 | 5 | 6 | 103 | | 10.4 |
| 1 | | 1 | | | | | | | | 1 | 0.1 | 10.5 |
| 2 | | | 1 | 1 | | | | | | 2 | .3 | 10.7 |
| 3 | 1 | 2 | 3 | 2 | | | 1 | | | 9 | 1.4 | 11.6 |
| 4 | | 2 | 2 | | | | | | | 4 | 1.8 | 12.0 |
| 6 | 10 | 40 | 28 | 21 | 17 | 4 | 3 | 2 | 2 | 127 | 16.1 | 24.8 |
| 7 | | 1 | 2 | 1 | | | | | | 4 | 16.6 | 25.2 |
| 8 | | 2 | | 1 | | | | | | 3 | 16.9 | 25.5 |
| 9 | 1 | 2 | 4 | 1 | 1 | | | | | 9 | 17.9 | 26.4 |
| 10 | | 1 | | 2 | | | | | | 3 | 18.2 | 26.7 |
| 12 | 6 | 67 | 117 | 97 | 60 | 38 | 26 | 5 | 9 | 425 | 66.1 | 69.2 |
| 14 | | 1 | 1 | 1 | | | | | | 3 | 66.4 | 69.6 |
| 15 | | 1 | | 1 | | | | | 1 | 3 | 66.8 | 70.2 |
| 16 | | | | 1 | | | | | | 1 | 66.9 | 70.3 |
| 18 | | 11 | 16 | 16 | 14 | 8 | 2 | 2 | 2 | 71 | 74.9 | 77.5 |
| 20 | | | | | | | | 1 | | 1 | 75.0 | 77.6 |
| 24 | 2 | 8 | 27 | 26 | 30 | 18 | 15 | 11 | 7 | 144 | 91.2 | 92.1 |
| 30 | | | | 1 | 6 | 2 | 1 | 2 | | 12 | 92.6 | 93.3 |
| 36 | 1 | 1 | 4 | 8 | 8 | 6 | 4 | 3 | 4 | 39 | 97.0 | 97.3 |
| 42 | | | | 1 | | | 1 | 1 | | 3 | 97.3 | 97.6 |
| 48 | | 1 | 1 | 4 | 2 | 2 | | 2 | 3 | 15 | 99.0 | 99.1 |
| 54 | | | | | | | 1 | | | 1 | 99.1 | 99.2 |
| 60 | | | | | 2 | | | | | 2 | 99.3 | 99.4 |
| 66 | | | | | | | 1 | | | 1 | 99.4 | 99.5 |
| 72 | | | | | | 1 | | | | 1 | 99.5 | 99.6 |
| 84 | | | 1 | | | | 1 | | | 2 | 99.8 | 99.8 |
| 108 | | | | | | | 1 | | | 1 | 99.9 | 99.9 |
| 120 | | | | 1 | | | | | | 1 | 100.0 | 100.0 |
| Total, excluding 0 class | 21 | 141 | 207 | 186 | 140 | 79 | 57 | 29 | 28 | 888 | | |
| Total | 22 | 169 | 223 | 199 | 154 | 90 | 66 | 34 | 34 | 991 | | |

ST. LOUIS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 7 | 64 | 35 | 28 | 16 | 14 | 9 | 4 | 3 | 180 | | 18.5 |
| 1 | 1 | 2 | | 1 | | | | | | 4 | 0.5 | 18.9 |
| 2 | 1 | | 1 | | | | | | | 2 | .8 | 19.2 |
| 3 | 2 | 3 | 4 | | 1 | 1 | | | | 11 | 2.1 | 20.3 |
| 4 | 1 | 2 | | 2 | | 1 | | | | 6 | 2.9 | 20.9 |
| 5 | | | | | | 1 | | | | 1 | 3.0 | 21.0 |
| 6 | 3 | 26 | 20 | 8 | 5 | 2 | 1 | 1 | 1 | 67 | 11.5 | 27.9 |
| 7 | 1 | | | | | | | | | 1 | 11.6 | 28.0 |
| 8 | | 2 | | | | | | | | 2 | 11.9 | 28.2 |
| 9 | | 3 | 1 | 2 | | | | | | 6 | 12.6 | 28.8 |
| 12 | 8 | 77 | 88 | 74 | 40 | 20 | 12 | 9 | 2 | 330 | 54.4 | 62.8 |
| 14 | | | 1 | | | | | | | 1 | 54.5 | 62.9 |
| 18 | | 7 | 18 | 15 | 6 | 3 | | 1 | | 50 | 60.8 | 68.1 |
| 24 | 2 | 19 | 41 | 51 | 35 | 25 | 13 | 6 | 5 | 197 | 85.7 | 88.4 |
| 26 | | | | | 1 | | | | | 1 | 85.8 | 88.5 |
| 30 | | 1 | | 6 | 2 | | 1 | | | 10 | 87.1 | 89.5 |
| 36 | | 2 | 14 | 11 | 12 | 9 | 2 | 1 | 4 | 55 | 94.1 | 95.2 |
| 42 | | 1 | 1 | 2 | 2 | 1 | | | 2 | 9 | 95.2 | 96.1 |
| 48 | | | 3 | 3 | 7 | 5 | 1 | 2 | 1 | 22 | 98.0 | 98.4 |
| 60 | | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 8 | 99.0 | 99.2 |
| 72 | | 1 | 2 | 1 | 1 | 1 | | 1 | | 7 | 99.9 | 99.9 |
| 96 | | | | | | 1 | | | | 1 | 100.0 | 100.0 |
| Total, excluding 0 class | 19 | 146 | 195 | 177 | 113 | 71 | 31 | 22 | 17 | 791 | | |
| Total | 26 | 210 | 230 | 205 | 129 | 85 | 40 | 26 | 20 | 971 | | |

[1] The largest household represented in this column for Baltimore was comprised of 15 persons and for St. Louis 12.

TABLE 20.—*Fresh oranges: Average quantity consumed in 1 week by stated number of households and their members, by size of household* [1]

BALTIMORE

| Number of persons in household | Average quantity for— | | Number of— | |
|---|---|---|---|---|
| | Households | Persons | Households | Persons |
| | *Oranges* | *Oranges* | | |
| 1 | 10.4 | 10.4 | 22 | 22 |
| 2 | 9.5 | 4.8 | 169 | 338 |
| 3 | 12.9 | 4.3 | 223 | 669 |
| 4 | 14.9 | 3.7 | 199 | 796 |
| 5 | 16.1 | 3.2 | 154 | 770 |
| 6 | 16.7 | 2.8 | 90 | 540 |
| 7 | 19.0 | 2.7 | 66 | 462 |
| 8 | 20.5 | 2.6 | 34 | 272 |
| 9 or more | 18.4 | 2.1 | 34 | 347 |
| Average | 14.4 | 3.4 | | |
| Total | | | 991 | 4,216 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| 1 | 7.0 | 7.0 | 26 | 26 |
| 2 | 9.2 | 4.6 | 210 | 420 |
| 3 | 14.8 | 4.9 | 230 | 690 |
| 4 | 16.6 | 4.1 | 205 | 820 |
| 5 | 19.6 | 3.9 | 129 | 645 |
| 6 | 20.6 | 3.4 | 85 | 510 |
| 7 | 16.8 | 2.4 | 40 | 280 |
| 8 | 20.8 | 2.6 | 26 | 208 |
| 9 or more | 27.3 | 2.8 | 20 | 196 |
| Average | 15.4 | 3.9 | | |
| Total | | | 971 | 3,795 |

[1] Averages in this table are based on table 19.

TABLE 21.[1]—*Fresh oranges: Average quantity consumed in 1 week per household and per capita, with distribution of households by size and by number of children*

[Two adults in each household]

BALTIMORE

| Households classified by number of— | | Average quantity consumed by— | | Number of households |
|---|---|---|---|---|
| Persons including children [2] | Children [2] | 1 household | 1 person | |
| | | *Oranges* | *Oranges* | |
| 2 | 0 | 9.59 | 4.80 | 165 |
| 3 | 1 | 12.57 | 4.17 | 105 |
| 4 | 2 | 13.80 | 3.45 | 90 |
| 5 | 3 | 12.75 | 2.55 | 44 |
| 6 | 4 | 15.00 | 2.50 | 20 |
| 7 | 5 | 9.80 | 1.40 | 15 |
| Average | | 11.74 | 3.55 | |
| Total | | | | 439 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| 2 | 0 | 9.20 | 4.60 | 205 |
| 3 | 1 | 16.47 | 5.49 | 107 |
| 4 | 2 | 18.21 | 4.55 | 75 |
| 5 | 3 | 19.14 | 3.83 | 42 |
| 6 | 4 | 20.22 | 3.37 | 23 |
| Average | | 13.90 | 4.56 | |
| Total | | | | 452 |

[1] See fig. 3, p. 14.
[2] Under 16 years of age.

TABLE 22.—*Fresh oranges: Average quantity consumed in 1 week by stated number of households and their members, by nationality or race*

BALTIMORE

| Nationality or race | Average quantity for— | | Number of— | |
|---|---|---|---|---|
| | Households | Persons | Households | Persons |
| | *Oranges* | *Oranges* | | |
| Native white | 15.5 | 3.65 | 436 | 1,851 |
| Foreign Jewish | 24.7 | 5.11 | 57 | 275 |
| Northern European | 14.1 | 3.75 | 203 | 767 |
| Eastern European | 14.0 | 2.83 | 49 | 243 |
| Mediterranean | 14.9 | 2.96 | 32 | 161 |
| Negro | 8.9 | 2.05 | 194 | 840 |
| Other | 14.5 | 3.68 | 20 | 79 |
| Average | 14.4 | 3.36 | | |
| Total | | | 991 | 4,216 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| Native white | 16.3 | 4.18 | 455 | 1,775 |
| Foreign Jewish | 26.6 | 6.10 | 14 | 61 |
| Northern European | 16.2 | 4.40 | 225 | 834 |
| Eastern European | 15.4 | 3.62 | 33 | 140 |
| Mediterranean | 21.6 | 4.08 | 33 | 175 |
| Negro | 7.9 | 2.00 | 134 | 531 |
| Other | 15.8 | 4.36 | 77 | 279 |
| Average | 15.4 | 3.94 | | |
| Total | | | 971 | 3,795 |

TABLE 23.—*Fresh oranges: Source of purchase in 1 week by households of each designated race or nationality*

BALTIMORE

| Source of purchase | Households of designated nationality or race— | | | | | | | Total households |
|---|---|---|---|---|---|---|---|---|
| | Native white | Foreign Jewish | Northern European | Eastern European | Mediterranean | Negro | Other | |
| Food store | 179 | 23 | 72 | 13 | 6 | 86 | 10 | 389 |
| City fruit stand | 147 | 13 | 52 | 20 | 16 | 53 | 4 | 305 |
| Huckster | 85 | 20 | 62 | 12 | 6 | 7 | 2 | 194 |
| Huckster and food store | | | 1 | | | | | 1 |
| Food store and fruit stand | 2 | | | | | | | 2 |
| Total | 413 | 56 | 187 | 45 | 28 | 146 | 16 | 891 |

ST. LOUIS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Food store | 318 | 4 | 139 | 11 | 23 | 68 | 48 | 611 |
| City fruit stand | 39 | 8 | 35 | 6 | 2 | 6 | 7 | 103 |
| Huckster | 20 | 2 | 15 | 7 | 3 | 1 | 7 | 55 |
| Huckster and food store | 13 | | 6 | 1 | | | 2 | 22 |
| Food store and fruit stand | 14 | | 7 | 1 | | 1 | 1 | 24 |
| Total | 404 | 14 | 202 | 26 | 28 | 76 | 65 | 815 |

TABLE 24.—*Fresh grapefruit. Distribution of households according to quantity used in 1 week and size of household*

BALTIMORE

| Quantity used by household (grapefruit) | Households each with number of persons specified | | | | | | | | | Total households | Proportion of total, excluding 0 class, using not more than stated quantity | Proportion of total using not more than stated quantity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more | | | |
| | | | | | | | | | | | *Percent* | *Percent* |
| 0 | 9 | 84 | 89 | 79 | 67 | 44 | 39 | 14 | 21 | 446 | | 44.8 |
| 1 | 4 | 12 | 12 | 7 | 5 | | 2 | | | 42 | 7.6 | 49.0 |
| 2 | 2 | 23 | 32 | 34 | 14 | 9 | 2 | 2 | 1 | 119 | 29.3 | 61.0 |
| 2½ | | | 1 | 1 | 2 | | | | | 4 | 30.0 | 61.4 |
| 3 | 5 | 21 | 40 | 25 | 22 | 11 | 5 | 2 | 2 | 133 | 54.2 | 74.8 |
| 3½ | | 1 | | | 2 | 1 | | | | 4 | 54.9 | 75.2 |
| 4 | 1 | 9 | 9 | 18 | 14 | 7 | 4 | 3 | 3 | 68 | 67.3 | 82.0 |
| 4½ | | | 1 | | 1 | | | | | 2 | 67.6 | 82.2 |
| 5 | | 1 | 2 | 3 | | 1 | | 1 | 1 | 9 | 69.3 | 83.1 |
| 5½ | | 1 | | | | | | | | 1 | 69.5 | 83.2 |
| 6 | 1 | 10 | 30 | 23 | 21 | 15 | 11 | 7 | 4 | 122 | 91.6 | 95.4 |
| 7 | | 2 | 3 | 5 | 1 | | | | | 11 | 93.6 | 96.5 |
| 8 | | 5 | 1 | 1 | 2 | 2 | 1 | 2 | | 14 | 96.2 | 97.9 |
| 9 | | | | | | 1 | | | | 1 | 96.4 | 98.0 |
| 10 | | | | | | | 1 | 1 | | 2 | 96.7 | 98.2 |
| 12 | | | 3 | 1 | 2 | 3 | 2 | 1 | 1 | 13 | 99.1 | 99.5 |
| 16 | | | | | | | | 1 | | 1 | 99.3 | 99.6 |
| 18 | | | 1 | | 1 | | | | | 2 | 99.6 | 99.8 |
| 24 | | | | 1 | | | | | 1 | 2 | 100.0 | 100.0 |
| Total, excluding 0 class | 13 | 85 | 135 | 119 | 87 | 50 | 28 | 20 | 13 | 550 | | |
| Total | 22 | 169 | 224 | 198 | 154 | 94 | 67 | 34 | 34 | 996 | | |

ST. LOUIS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 15 | 104 | 120 | 100 | 65 | 60 | 22 | 20 | 13 | 519 | | 53.1 |
| 1 | 1 | 7 | 5 | 1 | 2 | | | | | 16 | 3.5 | 54.7 |
| 1½ | | 1 | 2 | | | | | | | 3 | 4.1 | 55.0 |
| 2 | 3 | 22 | 21 | 11 | 6 | 4 | 1 | | | 68 | 19.0 | 62.0 |
| 2½ | | 2 | 1 | 1 | 2 | | | | | 6 | 20.3 | 62.6 |
| 3 | 2 | 16 | 23 | 22 | 7 | | | | 1 | 71 | 35.7 | 69.9 |
| 3½ | | | 3 | 3 | | | | | | 6 | 37.0 | 70.5 |
| 4 | | 13 | 9 | 17 | 13 | 4 | 1 | | 2 | 59 | 49.9 | 76.5 |
| 4½ | 1 | 1 | 1 | 1 | 1 | | | | | 5 | 51.0 | 77.0 |
| 5 | | 1 | 2 | 4 | 2 | 1 | | 1 | | 11 | 53.4 | 78.2 |
| 5½ | | | 1 | | | | | | 1 | 2 | 53.8 | 78.4 |
| 6 | 4 | 21 | 28 | 28 | 14 | 8 | 6 | 2 | | 111 | 78.0 | 89.7 |
| 6½ | | | | | 1 | | | | | 1 | 78.2 | 89.8 |
| 7 | | 9 | 5 | 3 | 6 | 2 | 2 | | 1 | 28 | 84.3 | 92.7 |
| 8 | | 4 | | 1 | 2 | 1 | 2 | | | 10 | 86.5 | 93.7 |
| 9 | | | | 1 | | 1 | | | | 2 | 86.9 | 93.9 |
| 10 | | 1 | 1 | 2 | | | | | | 4 | 87.8 | 94.3 |
| 11 | | | | | | 1 | | | | 1 | 88.0 | 94.4 |
| 12 | | 7 | 12 | 2 | 4 | 4 | 6 | 1 | 1 | 37 | 96.1 | 98.2 |
| 13 | | | | | | | | 1 | | 1 | 96.3 | 98.3 |
| 14 | | | | 5 | | | | | | 5 | 97.4 | 98.8 |
| 15 | | | | 1 | | | | | | 1 | 97.6 | 98.9 |
| 16 | | | | | 1 | | | | | 1 | 97.8 | 99.0 |
| 18 | | | | | 2 | | | | | 2 | 98.3 | 99.2 |
| 21 | | | | 1 | | | | | | 1 | 98.5 | 99.3 |
| 24 | | | | 1 | 3 | | 1 | | 2 | 7 | 100.0 | 100.0 |
| Total excluding 0 class | 11 | 105 | 114 | 105 | 66 | 26 | 19 | 5 | 8 | 459 | | |
| Total | 26 | 209 | 234 | 205 | 131 | 86 | 41 | 25 | 21 | 978 | | |

TABLE 25.—*Fresh grapefruit: Average quantity consumed in 1 week by stated number of households and their members, by size of household* [1]

BALTIMORE

| Number of persons in household | Average quantity for— | | Number of— | |
|---|---|---|---|---|
| | Households | Persons | Households | Persons |
| | *Grapefruit* | *Grapefruit* | | |
| 1 | 1.5 | 1.5 | 22 | 22 |
| 2 | 1.7 | .8 | 169 | 338 |
| 3 | 2.3 | .7 | 224 | 672 |
| 4 | 2.3 | .6 | 198 | 792 |
| 5 | 2.4 | .5 | 154 | 770 |
| 6 | 2.5 | .4 | 94 | 564 |
| 7 | 2.2 | .3 | 67 | 469 |
| 8 | 3.6 | .5 | 34 | 272 |
| 9 or more | 1.4 | .1 | 34 | 347 |
| Average | 2.2 | .5 | | |
| Total | | | 996 | 4,246 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| 1 | 1.6 | 1.6 | 26 | 26 |
| 2 | 2.3 | 1.2 | 209 | 418 |
| 3 | 2.3 | .8 | 234 | 702 |
| 4 | 2.8 | .7 | 205 | 820 |
| 5 | 3.3 | .7 | 131 | 655 |
| 6 | 1.9 | .3 | 86 | 516 |
| 7 | 4.1 | .6 | 41 | 287 |
| 8 | 1.7 | .2 | 25 | 200 |
| 9 or more | 4.0 | .4 | 21 | 205 |
| Average | 2.6 | .7 | | |
| Total | | | 978 | 3,829 |

[1] Averages in this table are based on table 24.

TABLE 26.[1]—*Fresh grapefruit: Average quantity consumed in 1 week per household and per capita, with distribution of households, by size and by number of children*

[Two adults in each household]

BALTIMORE

| Households classified by number of— | | Average quantity consumed by— | | Number of households |
|---|---|---|---|---|
| Persons, including children [2] | Children [2] | 1 household | 1 person | |
| | | *Grapefruit* | *Grapefruit* | |
| 2 | 0 | 1.70 | 0.85 | 165 |
| 3 | 1 | 1.89 | .63 | 105 |
| 4 | 2 | 1.74 | .44 | 90 |
| 5 | 3 | 1.82 | .36 | 44 |
| 6 | 4 | 1.60 | .27 | 20 |
| 7 | 5 | 1.47 | .21 | 15 |
| Average | | 1.75 | .53 | |
| Total | | | | 439 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| 2 | 0 | 2.35 | 1.17 | 205 |
| 3 | 1 | 2.02 | .67 | 109 |
| 4 | 2 | 2.37 | .59 | 77 |
| 5 | 3 | 1.48 | .30 | 43 |
| 6 | 4 | 2.04 | .34 | 24 |
| Average | | 2.18 | .71 | |
| Total | | | | 458 |

[1] See fig. 3, p. 14.

[2] Under 16 years of age.

TABLE 27.—*Fresh grapefruit: Average quantity consumed in 1 week by stated number of households and their members, by nationality or race*

BALTIMORE

| Nationality or race | Average quantity for— | | Number of— | |
|---|---|---|---|---|
| | Households | Persons | Households | Persons |
| | *Grapefruit* | *Grapefruit* | | |
| Native white | 2.4 | 0.57 | 443 | 1,888 |
| Foreign Jewish | 3.0 | .62 | 57 | 275 |
| Northern European | 2.2 | .59 | 201 | 760 |
| Eastern European | 1.6 | .33 | 49 | 243 |
| Mediterranean | 2.9 | .56 | 32 | 161 |
| Negro | 1.8 | .42 | 194 | 840 |
| Other | 1.5 | .38 | 20 | 79 |
| Average | 2.2 | .53 | | |
| Total | | | 996 | 4,246 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| Native white | 2.7 | 0.70 | 460 | 1,800 |
| Foreign Jewish | 3.8 | .92 | 13 | 53 |
| Northern European | 2.9 | .77 | 225 | 833 |
| Eastern European | 2.6 | .63 | 35 | 147 |
| Mediterranean | 2.6 | .49 | 33 | 175 |
| Negro | 1.6 | .40 | 137 | 547 |
| Other | 2.4 | .67 | 75 | 274 |
| Average | 2.6 | .66 | | |
| Total | | | 978 | 3,829 |

TABLE 28.—*Fresh grapefruit: Source of purchase in 1 week by households of each designated nationality or race*

BALTIMORE

| Source of purchase | Households of designated nationality or race— | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Native white | Foreign Jewish | Northern European | Eastern European | Mediterranean | Negro | Other | |
| Food store | 113 | 16 | 53 | 6 | 4 | 50 | 4 | 246 |
| City fruit stand | 78 | 10 | 34 | 7 | 11 | 32 | 1 | 173 |
| Huckster | 59 | 11 | 41 | 7 | 5 | 4 | 2 | 129 |
| Food store and fruit stand | 1 | | | | | 1 | | 2 |
| Total | 251 | 37 | 128 | 20 | 20 | 87 | 7 | 550 |

ST. LOUIS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Food store | 183 | 2 | 80 | 7 | 10 | 34 | 31 | 347 |
| City fruit stand | 27 | 6 | 23 | 3 | 1 | 3 | 4 | 67 |
| Huckster | 13 | 3 | 12 | 4 | 1 | | 5 | 38 |
| Huckster and food store | 8 | | 1 | | | | 1 | 10 |
| Food store and fruit stand | 7 | | 4 | | | 1 | 1 | 13 |
| Total | 238 | 11 | 120 | 14 | 12 | 38 | 42 | 475 |

TABLE 29.—*Fresh grapefruit: Distribution of households that never had used product compared with distribution of households that used product in 1 week, by income*

BALTIMORE

| Income of household, 1 week | Households never having used product— | | Households using product in week— | |
|---|---|---|---|---|
| | Number | Proportion receiving not more than designated income | Number | Proportion receiving not more than designated income |
| | | *Percent* | | *Percent* |
| $0–$4.99 | 6 | 5.9 | 9 | 2.8 |
| $5–$9.99 | 14 | 19.8 | 25 | 10.7 |
| $10–$14.99 | 23 | 42.6 | 34 | 21.3 |
| $15–$19.99 | 25 | 67.3 | 58 | 39.5 |
| $20–$24.99 | 10 | 77.2 | 50 | 55.2 |
| $25–$29.99 | 11 | 88.1 | 36 | 66.5 |
| $30–$34.99 | 5 | 93.1 | 31 | 76.2 |
| $35–$39.99 | 3 | 96.0 | 33 | 86.5 |
| $40–$44.99 | 2 | 98.0 | 7 | 88.7 |
| $45–$49.99 | 1 | 9.90 | 11 | 92.2 |
| $50–$99.99 | 1 | 100.0 | 20 | 98.4 |
| $100–$149.99 | | 100.0 | 4 | 99.7 |
| $150–$199.99 | | 100.0 | | 99.7 |
| $200 [1] | | 100.0 | 1 | 100.0 |
| Total | 101 | | 319 | |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| $0–$4.99 | 16 | 15.5 | 12 | 6.1 |
| $5–$9.99 | 4 | 19.4 | 3 | 7.6 |
| $10–$14.99 | 26 | 44.7 | 29 | 22.3 |
| $15–$19.99 | 13 | 57.3 | 21 | 33.0 |
| $20–$24.99 | 7 | 64.1 | 21 | 43.7 |
| $25–$29.99 | 11 | 74.8 | 19 | 53.3 |
| $30–$34.99 | 7 | 81.6 | 15 | 60.9 |
| $35–$39.99 | 6 | 87.4 | 17 | 69.5 |
| $40–$44.99 | 6 | 93.2 | 19 | 79.2 |
| $45–$49.99 | 1 | 94.2 | 9 | 83.8 |
| $50–$99.99 | 5 | 99.0 | 30 | 99.0 |
| $100–$149.99 | 1 | 100.0 | 2 | 100.0 |
| Total | 103 | | 197 | |

[1] A single household with an income of $200 used fresh grapefruit within the week.

TABLE 30.—*Canned tomato juice: Distribution of households according to quantity used in 1 week and size of household*

BALTIMORE

| Quantity used by household (ounces) | Households each with number of persons specified— | | | | | | | | | Total households | Proportion of total, excluding 0 class, using not more than stated quantity | Proportion of total using not more than stated quantity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more | | | |
| | | | | | | | | | | | *Percent* | *Percent* |
| 0 | 18 | 125 | 146 | 132 | 99 | 66 | 44 | 21 | 24 | 675 | | 69.2 |
| 7.5–12.4 | | 9 | 15 | 3 | 5 | 1 | 1 | | 1 | 35 | 11.6 | 72.7 |
| 12.5–17.4 | 2 | 11 | 17 | 15 | 9 | 3 | 5 | 3 | | 65 | 33.2 | 79.4 |
| 17.5–22.4 | | 3 | 9 | 8 | 4 | 1 | 3 | 3 | 1 | 32 | 43.9 | 82.7 |
| 22.5–27.4 | | 1 | 4 | 3 | 2 | 2 | 2 | 1 | | 15 | 48.8 | 84.2 |
| 27.5–32.4 | | 10 | 6 | 6 | 9 | 7 | 4 | 1 | 2 | 45 | 63.8 | 88.8 |
| 32.5–37.4 | | | 5 | 4 | 2 | | | 1 | 1 | 13 | 68.1 | 90.2 |
| 37.5–42.4 | | 2 | 8 | 6 | 5 | 6 | | | 2 | 29 | 77.7 | 93.1 |
| 42.5–47.4 | | 1 | 1 | 2 | 1 | | | | | 5 | 79.4 | 93.6 |
| 47.5–52.4 | | 2 | 1 | 1 | | 2 | 2 | | | 8 | 82.1 | 94.5 |
| 52.5–57.4 | | | 3 | 2 | 1 | 1 | | | | 7 | 84.4 | 95.2 |
| 57.5–62.4 | | 1 | 5 | 3 | 2 | 2 | 4 | 1 | | 18 | 90.4 | 97.0 |
| 62.5–67.4 | | 1 | | | | | | | | 1 | 90.7 | 97.1 |
| 67.5–72.4 | | | | 1 | 1 | | | | | 2 | 91.4 | 97.3 |
| 72.5–77.4 | | 1 | | | | | | | | 1 | 91.7 | 97.4 |
| 77.5–82.4 | | | 1 | | | | | | | 1 | 92.0 | 97.5 |
| 82.5–87.4 | | | 2 | 2 | 1 | 1 | 1 | 1 | | 8 | 94.7 | 98.4 |
| 87.5–92.4 | | 1 | | | | | | | | 1 | 95.0 | 98.5 |
| 92.5–97.4 | | | | | 2 | | | 1 | | 3 | 96.0 | 98.8 |
| 97.5–102.4 | | | | | | 1 | | | | 1 | 96.3 | 98.9 |
| 102.5 or more | | | | 2 | 4 | 1 | 1 | 1 | 2 | 11 | 100.0 | 100.0 |
| Total, excluding 0 class | 2 | 43 | 77 | 58 | 48 | 28 | 23 | 13 | 9 | 301 | | |
| Total | 20 | 168 | 223 | 190 | 147 | 94 | 67 | 34 | 33 | 976 | | |

ST. LOUIS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 24 | 172 | 174 | 138 | 97 | 66 | 32 | 18 | 15 | 736 | | 78.5 |
| 7.5–12.4 | | 5 | 4 | 2 | | | | | | 11 | 5.4 | 79.6 |
| 12.5–17.4 | 1 | 4 | 12 | 9 | 4 | 1 | 1 | | | 32 | 21.3 | 83.0 |
| 17.5–22.4 | | 3 | 4 | 8 | 6 | 2 | | | 1 | 24 | 33.2 | 85.6 |
| 22.5–27.4 | | 5 | 6 | 4 | 7 | | | | | 22 | 44.1 | 88.0 |
| 27.5–32.4 | | 2 | 7 | 4 | 1 | 2 | 1 | 2 | 1 | 20 | 54.0 | 90.1 |
| 32.5–37.4 | | | 2 | 4 | | 1 | | | | 7 | 57.4 | 90.8 |
| 37.5–42.4 | | 5 | 2 | 4 | 3 | 2 | | | | 16 | 65.4 | 92.5 |
| 42.5–47.4 | | 2 | 3 | | 1 | 1 | 1 | | | 8 | 69.3 | 93.4 |
| 47.5–52.4 | | 2 | 4 | 5 | 3 | 3 | | 2 | | 19 | 78.7 | 95.4 |
| 52.5–57.4 | | 1 | | 3 | 1 | 2 | | | | 7 | 82.2 | 96.2 |
| 57.5–62.4 | | 2 | | 2 | 1 | 1 | | 1 | | 7 | 85.6 | 96.9 |
| 62.5–67.4 | | | 1 | | | 1 | | | | 2 | 86.6 | 97.1 |
| 67.5–72.4 | | | | 4 | | 1 | | | | 5 | 89.1 | 97.7 |
| 72.5–77.4 | | | | | | | | | | | 89.1 | 97.7 |
| 77.5–82.4 | | | | | 1 | | | | | 1 | 89.6 | 97.8 |
| 82.5–87.4 | | | 2 | | | 1 | | | | 3 | 91.1 | 98.1 |
| 87.5–92.4 | | | | | | | | | | | 91.1 | 98.1 |
| 92.5–97.4 | | 1 | 1 | | | | 1 | | 1 | 4 | 93.1 | 98.5 |
| 97.5–102.4 | | 1 | | | | | | | | 1 | 93.6 | 98.6 |
| 102.5 or more | 1 | 1 | 5 | 1 | | 2 | 2 | | 1 | 13 | 100.0 | 100.0 |
| Total, excluding 0 class | 2 | 34 | 53 | 50 | 28 | 20 | 6 | 5 | 4 | 202 | | |
| Total | 26 | 206 | 227 | 188 | 125 | 86 | 38 | 23 | 19 | 938 | | |

TABLE 31.—*Canned tomato juice: Average quantity consumed in 1 week by stated number of households and their members, by size of household* [1]

BALTIMORE

| Number of persons in household | Average quantity for— | | Number of— | |
|---|---|---|---|---|
| | Households | Persons | Households | Persons |
| | *Ounces* | *Ounces* | | |
| 1 | 1.4 | 1.4 | 20 | 20 |
| 2 | 6.8 | 3.4 | 168 | 336 |
| 3 | 9.8 | 3.3 | 223 | 669 |
| 4 | 10.6 | 2.6 | 190 | 760 |
| 5 | 13.2 | 2.6 | 147 | 735 |
| 6 | 12.5 | 2.1 | 94 | 564 |
| 7 | 12.8 | 1.8 | 67 | 469 |
| 8 | 16.8 | 2.1 | 34 | 272 |
| 9 or more | 13.4 | 1.3 | 33 | 343 |
| Average | 10.6 | 2.5 | | |
| Total | | | 976 | 4,168 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| 1 | 7.0 | 7.0 | 26 | 26 |
| 2 | 6.4 | 3.2 | 206 | 412 |
| 3 | 10.0 | 3.3 | 227 | 681 |
| 4 | 10.6 | 2.6 | 188 | 752 |
| 5 | 6.9 | 1.4 | 125 | 625 |
| 6 | 11.6 | 1.9 | 86 | 516 |
| 7 | 12.2 | 1.7 | 38 | 266 |
| 8 | 9.5 | 1.2 | 23 | 184 |
| 9 or more | 14.1 | 1.5 | 19 | 182 |
| Average | 9.2 | 2.4 | | |
| Total | | | 938 | 3,644 |

[1] Averages in this table are based on table 30, appendix B.

TABLE 32.[1]—*Canned tomato juice: Average quantity consumed in 1 week per household and per capita, with distribution of households, by size and by number of children*

[Two adults in each household]

BALTIMORE

| Households classified by number of— | | Average quantity consumed by— | | Number of households |
|---|---|---|---|---|
| Persons, including children [2] | Children [2] | 1 household | 1 person | |
| | | *Ounces* | *Ounces* | |
| 2 | 0 | 6.94 | 3.47 | 165 |
| 3 | 1 | 8.52 | 2.84 | 104 |
| 4 | 2 | 7.76 | 1.94 | 87 |
| 5 | 3 | 8.66 | 1.73 | 41 |
| 6 | 4 | 6.40 | 1.07 | 20 |
| 7 | 5 | 6.80 | .97 | 15 |
| Average | | 7.62 | 2.31 | |
| Total | | | | 432 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| 2 | 0 | 6.38 | 3.19 | 201 |
| 3 | 1 | 12.09 | 4.03 | 104 |
| 4 | 2 | 12.41 | 3.10 | 68 |
| 5 | 3 | 8.93 | 1.79 | 41 |
| 6 | 4 | 10.52 | 1.75 | 23 |
| Average | | 9.13 | 3.00 | |
| Total | | | | 437 |

[1] See fig. 3, p. 14.

[2] Under 16 years of age.

TABLE 33.—*Canned tomato juice: Average quantity consumed in 1 week by stated number of households and their members, by nationality or race*

BALTIMORE

| Nationality or race | Average quantity for— | | Number of— | |
|---|---|---|---|---|
| | Households | Persons | Households | Persons |
| | *Ounces* | *Ounces* | | |
| Native white | 13.5 | 3.18 | 437 | 1,879 |
| Foreign Jewish | 10.5 | 2.19 | 54 | 259 |
| Northern European | 12.4 | 3.25 | 196 | 747 |
| Eastern European | 6.9 | 1.38 | 49 | 243 |
| Mediterranean | 6.4 | 1.28 | 32 | 160 |
| Negro | 3.9 | .91 | 189 | 810 |
| Other | 8.3 | 2.26 | 19 | 70 |
| Average | 10.6 | 2.48 | | |
| Total | | | 976 | 4,168 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| Native white | 10.6 | 2.68 | 440 | 1,725 |
| Foreign Jewish | 23.0 | 5.01 | 12 | 55 |
| Northern European | 7.0 | 1.91 | 213 | 776 |
| Eastern European | 11.4 | 2.69 | 32 | 136 |
| Mediterranean | 6.1 | 1.17 | 31 | 160 |
| Negro | 7.3 | 1.89 | 131 | 508 |
| Other | 8.6 | 2.38 | 79 | 284 |
| Average | 9.2 | 2.36 | | |
| Total | | | 938 | 3,644 |

TABLE 34.—*Canned tomato juice: distribution of households that never had used product compared with distribution of households that used product in 1 week, by income*

BALTIMORE

| Income of household, 1 week | Households never having used product— | | Households using product within week— | |
|---|---|---|---|---|
| | Number | Proportion receiving not more than designated income | Number | Proportion receiving not more than designated income |
| | | *Percent* | | *Percent* |
| $0–$4.99 | 17 | 6.0 | 7 | 3.5 |
| $5–$9.99 | 46 | 22.3 | 13 | 10.0 |
| $10–$14.99 | 51 | 40.3 | 21 | 20.5 |
| $15–$19.99 | 67 | 64.0 | 27 | 34.0 |
| $20–$24.99 | 28 | 73.9 | 33 | 50.5 |
| $25–$29.99 | 30 | 84.5 | 24 | 62.5 |
| $30–$34.99 | 15 | 89.8 | 18 | 71.5 |
| $35–$39.99 | 15 | 95.1 | 18 | 80.5 |
| $40–$44.99 | 7 | 97.5 | 8 | 84.5 |
| $45–$49.99 | 4 | 98.9 | 8 | 88.5 |
| $50–$99.99 | 3 | 100.0 | 20 | 98.5 |
| $100–$149.99 | | 100.0 | 3 | 100.0 |
| Total | 283 | | 200 | |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| $0–$4.99 | 35 | 14.6 | 7 | 5.6 |
| $5–$9.99 | 9 | 18.4 | 4 | 8.7 |
| $10–$14.99 | 47 | 38.1 | 23 | 27.0 |
| $15–$19.99 | 32 | 51.5 | 14 | 38.1 |
| $20–$24.99 | 32 | 64.9 | 10 | 46.0 |
| $25–$29.99 | 27 | 76.2 | 8 | 52.4 |
| $30–$34.99 | 13 | 81.6 | 15 | 64.3 |
| $35–$39.99 | 11 | 86.2 | 10 | 72.2 |
| $40–$44.99 | 15 | 92.5 | 12 | 81.7 |
| $45–$49.99 | 3 | 93.7 | 5 | 85.7 |
| $50–$99.99 | 14 | 99.6 | 16 | 98.4 |
| $100–$149.99 | 1 | 100.0 | 2 | 100.0 |
| Total | 239 | | 126 | |

TABLE 35.—*Canned pineapple juice: Distribution of households according to quantity consumed in 1 week*

BALTIMORE

| Quantity used by household (ounces) | House-hold | Proportion using stated quantity | Proportion using not more than stated quantity |
|---|---|---|---|
| | | *Percent* | *Percent* |
| 0 | 885 | 88.7 | 88.7 |
| 10 | 4 | .4 | 89.1 |
| 12 | 36 | 3.6 | 92.7 |
| 13 | 2 | .2 | 92.9 |
| 16 | 2 | .2 | 93.1 |
| 18 | 17 | 1.7 | 94.8 |
| 20 | 4 | .4 | 95.2 |
| 24 | 7 | .7 | 95.9 |
| 25 | 6 | .6 | 96.5 |
| 30 | 1 | .1 | 96.6 |
| 32 | 1 | .1 | 96.7 |
| 36 | 19 | 1.9 | 98.6 |
| 38 | 5 | .5 | 99.1 |
| 48 | 3 | .3 | 99.4 |
| 50 | 2 | .2 | 99.6 |
| 54 | 1 | .1 | 99.7 |
| 60 | 1 | .1 | 99.8 |
| 75 | 1 | .1 | 99.9 |
| 144 | 1 | .1 | 100.0 |
| Total | 998 | 100.0 | |

ST. LOUIS

| | | | |
|---|---|---|---|
| 0 | 925 | 94.8 | 94.8 |
| 12 | 9 | .9 | 95.7 |
| 14 | 1 | .1 | 95.8 |
| 15 | 1 | .1 | 95.9 |
| 16 | 1 | .1 | 96.0 |
| 18 | 11 | 1.1 | 97.1 |
| 24 | 2 | .2 | 97.3 |
| 25 | 3 | .3 | 97.6 |
| 32 | 2 | .2 | 97.8 |
| 36 | 10 | 1.1 | 98.9 |
| 38 | 1 | .1 | 99.0 |
| 60 | 1 | .1 | 99.1 |
| 64 | 1 | .1 | 99.2 |
| 72 | 4 | .4 | 99.6 |
| 75 | 1 | .1 | 99.7 |
| 80 | 1 | .1 | 99.8 |
| 90 | 1 | .1 | 99.9 |
| 108 | 1 | .1 | 100.0 |
| Total | 976 | 100.0 | |

TABLE 36.—*Canned grapefruit juice: Distribution of households according to quantity consumed in 1 week*

BALTIMORE

| Quantity used by household (ounces) | Households | Proportion using stated quantity | Proportion using not more than stated quantity |
|---|---|---|---|
| | | *Percent* | *Percent* |
| 0 | 952 | 94.8 | 94.8 |
| 10 | 1 | .1 | 94.9 |
| 12 | 8 | .8 | 95.7 |
| 14 | 5 | .5 | 96.2 |
| 15 | 1 | .1 | 96.3 |
| 16 | 1 | .1 | 96.4 |
| 18 | 9 | .9 | 97.3 |
| 19 | 1 | .1 | 97.4 |
| 20 | 1 | .1 | 97.5 |
| 24 | 3 | .3 | 97.8 |
| 26 | 1 | .1 | 97.9 |
| 27 | 3 | .3 | 98.2 |
| 32 | 4 | .4 | 98.6 |
| 36 | 5 | .5 | 99.1 |
| 40 | 2 | .2 | 99.3 |
| 54 | 3 | .3 | 99.6 |
| 60 | 1 | .1 | 99.7 |
| 72 | 2 | .2 | 99.9 |
| 81 | 1 | .1 | 100.0 |
| Total | 1,004 | 100.0 | |

ST. LOUIS

| | | | |
|---|---|---|---|
| 0 | 975 | 97.6 | 97.6 |
| 12 | 1 | .1 | 97.7 |
| 14 | 3 | .3 | 98.0 |
| 18 | 6 | .6 | 98.6 |
| 24 | 1 | .1 | 98.7 |
| 27 | 3 | .3 | 99.0 |
| 32 | 1 | .1 | 99.1 |
| 36 | 5 | .5 | 99.6 |
| 54 | 1 | .1 | 99.7 |
| 57 | 1 | .1 | 99.8 |
| 112 | 1 | .1 | 99.9 |
| 216 | 1 | .1 | 100.0 |
| Total | 999 | 100.0 | |

TABLE 37.—*Canned prune juice: Distribution of households according to quantity consumed in 1 week*

BALTIMORE

| Quantity used by household (ounces) | Households | Proportion using stated quantity | Proportion using not more than stated quantity |
|---|---|---|---|
| | | *Percent* | *Percent* |
| 0 | 968 | 96.4 | 96.4 |
| 8 | 1 | .1 | 96.5 |
| 10 | 16 | 1.6 | 98.1 |
| 12 | 2 | .2 | 98.3 |
| 16 | 1 | .1 | 98.4 |
| 20 | 3 | .3 | 98.7 |
| 24 | 2 | .2 | 98.9 |
| 32 | 8 | .8 | 99.7 |
| 36 | 1 | .1 | 99.8 |
| 64 | 2 | .2 | 100.0 |
| Total | 1,004 | 100.0 | |

ST. LOUIS

| | | | |
|---|---|---|---|
| 0 | 1,001 | 99.1 | 99.1 |
| 10 | 1 | .1 | 99.2 |
| 12 | 2 | .2 | 99.4 |
| 16 | 1 | .1 | 99.5 |
| 30 | 1 | .1 | 99.6 |
| 32 | 4 | .4 | 100.0 |
| Total | 1,010 | 100.0 | |

TABLE 38.—*Canned orange juice: Distribution of households according to quantity consumed in 1 week*

BALTIMORE

| Quantity used by household (ounces) | Households | Proportion using stated quantity | Proportion using not more than stated quantity |
|---|---|---|---|
| | | *Percent* | *Percent* |
| 0 | 977 | 97.0 | 97.0 |
| 12 | 5 | .5 | 97.5 |
| 15 | 1 | .1 | 97.6 |
| 18 | 1 | .1 | 97.7 |
| 19 | 1 | .1 | 97.8 |
| 24 | 7 | .7 | 98.5 |
| 28 | 2 | .2 | 98.7 |
| 30 | 1 | .1 | 98.8 |
| 36 | 8 | .8 | 99.6 |
| 45 | 1 | .1 | 99.7 |
| 48 | 1 | .1 | 99.8 |
| 54 | 1 | .1 | 99.9 |
| 60 | 1 | .1 | 100.0 |
| Total | 1,007 | 100.0 | |

ST. LOUIS

| | | | |
|---|---|---|---|
| 0 | 999 | 98.9 | 98.9 |
| 8 | 1 | .1 | 99.0 |
| 10 | 1 | .1 | 99.1 |
| 15 | 1 | .1 | 99.2 |
| 16 | 1 | .1 | 99.3 |
| 20 | 1 | .1 | 99.4 |
| 24 | 1 | .1 | 99.5 |
| 30 | 1 | .1 | 99.6 |
| 32 | 1 | .1 | 99.7 |
| 45 | 1 | .1 | 99.8 |
| 60 | 1 | .1 | 99.9 |
| 90 | 1 | .1 | 100.0 |
| Total | 1,010 | 100.0 | |

TABLE 39.—*Canned grapefruit: Distribution of households according to quantity consumed in 1 week*

BALTIMORE

| Quantity used by household (ounces) | Households | Proportion using stated quantity | Proportion using not more than stated quantity |
|---|---|---|---|
| | | *Percent* | *Percent* |
| 0 | 961 | 95.7 | 95.7 |
| 10 | 1 | .1 | 95.8 |
| 12 | 2 | .2 | 96.0 |
| 16 | 1 | .1 | 96.1 |
| 18 | 5 | .5 | 96.6 |
| 20 | 21 | 2.1 | 98.7 |
| 24 | 1 | .1 | 98.8 |
| 27 | 1 | .1 | 98.9 |
| 36 | 1 | .1 | 99.0 |
| 40 | 7 | .7 | 99.7 |
| 60 | 3 | .3 | 100.0 |
| Total | 1,004 | 100.0 | |

ST. LOUIS

| | | | |
|---|---|---|---|
| 0 | 965 | 97.2 | 97.2 |
| 8 | 1 | .1 | 97.3 |
| 20 | 13 | 1.3 | 98.6 |
| 27 | 1 | .1 | 98.7 |
| 32 | 1 | .1 | 98.8 |
| 40 | 4 | .4 | 99.2 |
| 42 | 1 | .1 | 99.3 |
| 48 | 1 | .1 | 99.4 |
| 60 | 1 | .1 | 99.5 |
| 80 | 2 | .2 | 99.7 |
| 87 | 1 | .1 | 99.8 |
| 140 | 1 | .1 | 99.9 |
| 240 | 1 | .1 | 100.0 |
| Total | 993 | 100.0 | |

TABLE 40.—*Dairy orange beverage: Distribution of households according to quantity consumed in 1 week*

BALTIMORE

| Quantity used by household (ounces) | Households | Proportion using stated quantity | Proportion using not more than stated quantity |
|---|---|---|---|
| | | *Percent* | *Percent* |
| 0 | 1,003 | 99.1 | 99.1 |
| 8 | 4 | .4 | 99.5 |
| 16 | 2 | .2 | 99.7 |
| 32 | 2 | .2 | 99.9 |
| 224 | 1 | .1 | 100.0 |
| Total | 1,012 | 100.0 | |

ST. LOUIS

| | | | |
|---|---|---|---|
| 0 | 973 | 96.2 | 96.2 |
| 8 | 5 | .5 | 96.7 |
| 16 | 3 | .3 | 97.0 |
| 24 | 1 | .1 | 97.1 |
| 32 | 9 | .9 | 98.0 |
| 56 | 1 | .1 | 98.1 |
| 64 | 4 | .4 | 98.5 |
| 80 | 1 | .1 | 98.6 |
| 96 | 5 | .5 | 99.1 |
| 112 | 2 | .2 | 99.3 |
| 128 | 2 | .2 | 99.5 |
| 224 | 5 | .5 | 100.0 |
| Total | 1,011 | 100.0 | |

TABLE 41.—*Fresh oranges: Average per capita consumption in 1 week, for households of specified size, by income*

BALTIMORE

| Income of household, 1 week | Average per capita consumption for— Households of stated number of persons | | | | | | Total households | Households comprised of stated number of persons | | | | | | Total households |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | | 2 | 3 | 4 | 5 | 6 | 7 | |
| | *Oranges* | *Oranges* | *Oranges* | *Oranges* | *Oranges* | *Oranges* | *Oranges* | | | | | | | |
| $0–$4.99 | 4.33 | 2.80 | 1.08 | 3.30 | | 1.71 | 2.82 | 9 | 5 | 3 | 4 | | 2 | 23 |
| $5–$9.99 | 2.95 | 3.94 | 2.78 | 1.96 | 2.00 | 0 | 2.76 | 19 | 18 | 7 | 11 | 2 | 1 | 58 |
| $10–$14.99 | 3.62 | 3.55 | 1.82 | 2.57 | 1.33 | .86 | 2.20 | 24 | 14 | 21 | 14 | 12 | 6 | 91 |
| $15–$19.99 | 5.44 | 3.64 | 3.23 | 2.40 | 2.11 | 1.44 | 3.00 | 27 | 29 | 22 | 13 | 9 | 11 | 111 |
| $20–$24.99 | 3.89 | 4.22 | 3.88 | 3.30 | 3.54 | 2.57 | 3.65 | 9 | 20 | 14 | 16 | 13 | 2 | 74 |
| $25–$29.99 | 5.82 | 4.42 | 3.66 | 3.24 | 2.75 | 2.23 | 3.58 | 11 | 20 | 16 | 10 | 8 | 5 | 70 |
| $30–$34.99 | 5.00 | 4.75 | 3.70 | 3.27 | 3.50 | 4.71 | 3.81 | 3 | 8 | 10 | 11 | 4 | 2 | 38 |
| $35–$39.99 | 6.00 | 5.40 | 3.83 | 4.50 | 1.50 | 2.86 | 3.96 | 4 | 10 | 9 | 8 | 2 | 6 | 39 |
| $40–$44.99 | 6.00 | 4.25 | 3.90 | 2.40 | 2.00 | 3.43 | 3.69 | 3 | 4 | 5 | 2 | 1 | 1 | 16 |
| $45–$49.99 | 7.50 | 4.00 | 5.50 | 3.60 | 3.00 | 3.43 | 4.24 | 2 | 2 | 3 | 2 | 2 | 1 | 12 |
| $50–$99.99 | 4.50 | 5.67 | 4.61 | 6.00 | 4.33 | 2.29 | 4.31 | 2 | 4 | 7 | 2 | 3 | 3 | 21 |
| $100–$149.99 | | | 8.25 | 10.80 | | | 9.67 | | | 2 | 2 | | | 4 |
| $150–$199.99 | | | | | | | | | | | | | | |
| $200–$249.99 [1] | | | | 4.80 | | | 4.80 | | | | 1 | | | 1 |
| Average | 4.50 | 4.12 | 3.37 | 3.22 | 2.59 | 2.03 | 3.30 | | | | | | | |
| Total | | | | | | | | 113 | 134 | 119 | 96 | 56 | 40 | 558 |

ST. LOUIS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $0–$4.99 | 2.44 | 0.89 | 4.50 | 3.00 | 0.67 | | 2.46 | 24 | 9 | 8 | 4 | 3 | | 48 |
| $5–$9.99 | 1.50 | 2.00 | 2.50 | 1.20 | | | 1.80 | 6 | 2 | 3 | 2 | | | 13 |
| $10–$14.99 | 2.75 | 1.41 | 3.38 | 2.25 | 1.97 | | 2.35 | 16 | 17 | 16 | 12 | 11 | | 72 |
| $15–$19.99 | 5.36 | 5.56 | 3.07 | 3.60 | 1.33 | | 3.72 | 14 | 9 | 18 | 9 | 3 | | 53 |
| $20–$24.99 | 3.38 | 6.40 | 4.56 | 4.20 | 2.00 | | 4.24 | 8 | 10 | 13 | 4 | 5 | | 40 |
| $25–$29.99 | 4.00 | 6.44 | 3.60 | 3.60 | 3.43 | | 4.12 | 9 | 9 | 10 | 4 | 7 | | 39 |
| $30–$34.99 | 7.20 | 4.67 | 5.06 | 5.71 | 2.67 | | 4.98 | 5 | 9 | 8 | 7 | 3 | | 32 |
| $35–$39.99 | 5.62 | 6.33 | 3.00 | 4.50 | 6.00 | | 4.95 | 4 | 6 | 4 | 8 | 3 | | 25 |
| $40–$44.99 | 6.60 | 6.00 | 5.25 | 3.60 | 5.50 | | 5.44 | 5 | 7 | 10 | 2 | 6 | | 30 |
| $45–$49.99 | 12.00 | 5.35 | 4.50 | 4.80 | | | 5.62 | 2 | 5 | 2 | 3 | | | 12 |
| $50–$99.99 | 5.40 | 7.33 | 4.65 | 5.20 | 4.50 | | 5.36 | 5 | 9 | 10 | 6 | 4 | | 34 |
| $100–$149.99 [1] | | 4.00 | 18.00 | | | | 9.60 | | 2 | 1 | | | | 3 |
| Average | 4.00 | 4.58 | 4.14 | 3.83 | 3.08 | | 3.95 | | | | | | | |
| Total | | | | | | | | 98 | 94 | 103 | 61 | 45 | | 401 |

[1] The highest income reported in Baltimore was $200, and in St. Louis $125.

TABLE 42.—*Fresh grapefruit: Average per capita consumption in 1 week, for households of specified size, by income*

BALTIMORE

| Income of household, 1 week | Average per capita consumption for— Households of stated number of persons | | | | | | Total households | Households comprised of stated number of persons | | | | | | Total households |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | | 2 | 3 | 4 | 5 | 6 | 7 | |
| | *Grapefruit* | *Grapefruit* | *Grapefruit* | *Grapefruit* | *Grapefruit* | *Grapefruit* | *Grapefruit* | | | | | | | |
| $0–$4.99 | 0.50 | 0.93 | 0.00 | 0.00 | ---------- | 0.21 | 0.38 | 9 | 5 | 3 | 2 | ---------- | 2 | 21 |
| $5–$9.99 | .42 | .39 | .33 | .18 | 0.00 | 0 | .29 | 19 | 18 | 6 | 11 | 2 | 1 | 57 |
| $10–$14.99 | .42 | .55 | .32 | .21 | .14 | .17 | .28 | 24 | 14 | 21 | 15 | 12 | 6 | 92 |
| $15–$19.99 | .89 | .67 | .51 | .35 | .37 | .13 | .48 | 27 | 29 | 22 | 13 | 9 | 11 | 111 |
| $20–$24.99 | 1.16 | .65 | .38 | .41 | .38 | .86 | .51 | 9 | 20 | 14 | 16 | 13 | 2 | 74 |
| $25–$29.99 | .82 | .67 | .40 | .26 | .62 | .17 | .48 | 11 | 20 | 17 | 10 | 8 | 5 | 71 |
| $30–$34.99 | .66 | .87 | .60 | .56 | .47 | .43 | .59 | 3 | 8 | 10 | 11 | 5 | 2 | 39 |
| $35–$39.99 | 1.00 | 1.27 | .78 | .42 | .50 | .57 | .73 | 4 | 11 | 9 | 8 | 2 | 6 | 40 |
| $40–$44.99 | 1.34 | 0 | .30 | .20 | .67 | 1.71 | .55 | 3 | 3 | 5 | 2 | 1 | 1 | 15 |
| $45–$49.99 | 1.25 | .33 | 1.42 | 1.20 | .25 | .71 | .83 | 2 | 2 | 3 | 2 | 2 | 3 | 14 |
| $50–$99.99 | .50 | 1.42 | .93 | .40 | 1.50 | .67 | .99 | 2 | 4 | 7 | 2 | 3 | 2 | 20 |
| $100–$149.99 | ---------- | ---------- | 1.00 | .35 | ---------- | ---------- | .64 | ---------- | ---------- | 2 | 2 | ---------- | ---------- | 4 |
| $150–$199.99 | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- |
| $200–$249.99 [1] | ---------- | ---------- | ---------- | .80 | ---------- | ---------- | .80 | ---------- | ---------- | ---------- | 1 | ---------- | ---------- | 1 |
| Average | .70 | .69 | .50 | .35 | .42 | .36 | .49 | | | | | | | |
| Total | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 113 | 134 | 119 | 95 | 57 | 41 | 559 |

ST. LOUIS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $0–$4.99 | 0.56 | 0.00 | 0.00 | 0.80 | 0.00 | ---------- | 0.31 | 24 | 8 | 7 | 4 | 3 | ---------- | 46 |
| $5–$9.99 | .46 | 0 | .50 | 0 | ---------- | ---------- | .30 | 7 | 2 | 3 | 2 | ---------- | ---------- | 14 |
| $10–$14.99 | .98 | .32 | .47 | .26 | .30 | ---------- | .40 | 15 | 18 | 16 | 13 | 12 | ---------- | 74 |
| $15–$19.99 | .86 | .50 | .62 | .33 | 0 | ---------- | .50 | 14 | 9 | 18 | 9 | 3 | ---------- | 53 |
| $20–$24.99 | 1.19 | .97 | .55 | .90 | .43 | ---------- | .73 | 8 | 11 | 14 | 4 | 5 | ---------- | 42 |
| $25–$29.99 | 1.34 | .52 | .23 | .18 | .38 | ---------- | .45 | 9 | 11 | 11 | 4 | 7 | ---------- | 42 |
| $30–$34.99 | .40 | .67 | .69 | .57 | 0 | ---------- | .53 | 5 | 9 | 8 | 7 | 3 | ---------- | 32 |
| $35–$39.99 | 1.62 | 1.02 | 1.83 | .65 | .28 | ---------- | .88 | 4 | 7 | 3 | 8 | 3 | ---------- | 25 |
| $40–$44.99 | 1.50 | 1.26 | .90 | .65 | .17 | ---------- | .77 | 5 | 7 | 10 | 2 | 6 | ---------- | 30 |
| $45–$49.99 | 1.00 | .60 | 1.50 | .67 | ---------- | ---------- | .93 | 2 | 5 | 2 | 3 | ---------- | ---------- | 12 |
| $50–$99.99 | 2.60 | 1.07 | 1.22 | .84 | 1.00 | ---------- | 1.16 | 5 | 9 | 10 | 7 | 4 | ---------- | 35 |
| $100–$149.99 [1] | ---------- | .58 | 2.50 | ---------- | ---------- | ---------- | 1.35 | ---------- | 2 | 1 | ---------- | ---------- | ---------- | 3 |
| Average | 2.00 | .64 | .66 | .51 | .31 | ---------- | .60 | | | | | | | |
| Total | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 98 | 98 | 103 | 63 | 46 | ---------- | 408 |

[1] The highest income reported in Baltimore was $200, and in St. Louis $125.

TABLE 43.—*Canned tomato juice: Average per capita consumption in 1 week, for households of specified size, by income*

BALTIMORE

| Income of household, 1 week | Average per capita consumption for— Households of stated number of persons | | | | | | Total households | Households comprised of stated number of persons | | | | | | Total households |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | | 2 | 3 | 4 | 5 | 6 | 7 | |
| | *Ounces* | *Ounces* | *Ounces* | *Ounces* | *Ounces* | *Ounces* | *Ounces* | | | | | | | |
| $0–$4.99 | 1.22 | 4.67 | 0.00 | 1.60 | | 1.43 | 1.82 | 9 | 5 | 3 | 4 | | 2 | 23 |
| $5–$9.99 | 1.52 | 1.44 | .58 | .82 | 1.67 | 0 | 1.13 | 19 | 18 | 6 | 11 | 2 | 1 | 57 |
| $10–$14.99 | .74 | .57 | .24 | 1.42 | 1.36 | 1.48 | .93 | 23 | 14 | 21 | 12 | 12 | 6 | 88 |
| $15–$19.99 | 1.89 | 2.04 | 1.02 | .46 | 2.87 | .88 | 1.47 | 27 | 30 | 22 | 13 | 9 | 11 | 112 |
| $20–$24.99 | 1.56 | 2.00 | 2.88 | 2.90 | 2.72 | .67 | 2.45 | 9 | 20 | 13 | 16 | 13 | 3 | 74 |
| $25–$29.99 | 3.40 | 3.30 | 1.40 | .80 | 0 | .80 | 1.52 | 10 | 20 | 15 | 11 | 8 | 5 | 69 |
| $30–$34.99 | 10.00 | 5.58 | 5.85 | 3.91 | 2.00 | 1.14 | 4.28 | 3 | 8 | 10 | 9 | 5 | 2 | 37 |
| $35–$39.99 | 3.00 | 3.82 | 3.83 | .90 | 0 | 2.62 | 2.54 | 4 | 11 | 9 | 8 | 2 | 6 | 40 |
| $40–$44.99 | 20.66 | 8.00 | 13.94 | 0 | 0 | 0 | 7.77 | 3 | 4 | 4 | 2 | 1 | 1 | 15 |
| $45–$49.99 | 16.00 | 10.00 | 2.88 | 3.60 | 2.33 | 0 | 4.49 | 2 | 2 | 2 | 2 | 2 | 1 | 11 |
| $50–$99.99 | 13.25 | 12.33 | 9.28 | 19.60 | 6.44 | .67 | 8.46 | 2 | 4 | 7 | 2 | 3 | 3 | 21 |
| $100–$149.99 | | | 9.88 | 0 | | | 4.39 | | | 2 | 2 | | | 4 |
| $150–$199.99 | | | | | | | | | | | | | | |
| $200–$249.99 [1] | | | | 0 | | | 0 | | | | 1 | | | 1 |
| Average | 2.87 | 3.03 | 2.88 | 1.96 | 2.01 | 1.16 | 2.35 | | | | | | | |
| Total | | | | | | | | 111 | 136 | 114 | 93 | 57 | 41 | 552 |

ST. LOUIS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $0–$4.99 | 1.80 | 0.00 | 1.00 | 0.80 | 0.00 | | 0.94 | 25 | 9 | 8 | 4 | 3 | | 49 |
| $5–$9.99 | 4.66 | 0 | 1.75 | 0 | | | 1.92 | 6 | 2 | 3 | 2 | | | 13 |
| $10–$14.99 | 3.00 | 1.70 | 4.36 | 1.75 | 2.33 | | 2.58 | 16 | 18 | 14 | 12 | 11 | | 71 |
| $15–$19.99 | .86 | 5.70 | 1.62 | 1.78 | 0 | | 1.98 | 15 | 9 | 15 | 9 | 3 | | 51 |
| $20–$24.99 | 2.50 | 3.27 | 2.28 | 0 | 2.83 | | 2.31 | 8 | 10 | 16 | 4 | 5 | | 43 |
| $25–$29.99 | 10.00 | 2.06 | 0 | 1.15 | 1.00 | | 2.19 | 10 | 11 | 10 | 4 | 6 | | 41 |
| $30–$34.99 | 8.34 | 6.50 | 0 | 2.00 | 2.00 | | 2.80 | 3 | 8 | 7 | 6 | 4 | | 28 |
| $35–$39.99 | 0 | 4.57 | 6.38 | 2.05 | 0 | | 2.75 | 4 | 7 | 4 | 7 | 3 | | 25 |
| $40–$44.99 | 4.38 | 0 | 2.25 | 0 | 3.61 | | 2.21 | 4 | 7 | 8 | 2 | 6 | | 27 |
| $45–$49.99 | 14.00 | 0 | 0 | 3.33 | | | 2.36 | 1 | 4 | 1 | 3 | | | 9 |
| $50–$99.99 | 6.20 | .76 | 6.56 | 0 | 3.25 | | 3.24 | 5 | 7 | 9 | 6 | 4 | | 31 |
| $100–$149.99 [1] | | 2.33 | 6.25 | | | | 3.90 | | 2 | 1 | | | | 3 |
| Average | 3.52 | 2.46 | 2.54 | 1.38 | 1.97 | | 2.31 | | | | | | | |
| Total | | | | | | | | 97 | 94 | 96 | 59 | 45 | | 391 |

[1] The highest income reported in Baltimore was $200, and in St. Louis $125.

TABLE 44.—*Average per capita expenditures for food and rent, by per capita income of household* [1]

[Households for whom information was obtained on income, food and rent]

BALTIMORE

| Per capita income of household, 1 week | Number of— | | Per capita expenditure of household in 1 week for— | |
|---|---|---|---|---|
| | Households | Persons | Food | Rent |
| | | | *Dollars* | *Dollars* |
| Under $2.50 | 72 | 459 | 1.28 | 1.03 |
| $2.50–$4.99 | 111 | 543 | 1.83 | 1.07 |
| $5–$7.49 | 80 | 283 | 2.83 | 1.20 |
| $7.50–$9.99 | 40 | 113 | 3.50 | 1.55 |
| $10–$12.49 | 23 | 68 | 3.74 | 1.61 |
| $12.50–$14.99 | 10 | 31 | 4.40 | 2.60 |
| $15 and over [2] | 13 | 27 | 4.69 | 3.31 |
| Average | | | 2.43 | 1.31 |
| Total | 349 | 1,524 | | |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| Under $2.50 | 27 | 166 | 1.30 | 1.07 |
| $2.50–$4.99 | 76 | 344 | 1.74 | 1.03 |
| $5–$7.49 | 55 | 223 | 2.56 | 1.04 |
| $7.50–$9.99 | 22 | 71 | 3.00 | 1.27 |
| $10–$12.49 | 19 | 55 | 3.42 | 1.95 |
| $12.50–$14.99 | 12 | 35 | 4.00 | 2.17 |
| $15 and over [2] | 16 | 38 | 4.13 | 3.00 |
| Average | | | 2.44 | 1.33 |
| Total | 227 | 932 | | |

[1] See table 8 for the average expenditures for food and rent as determined for the same selected households represented in this table, by total income of household instead of per capita income.

[2] The highest per capita income for any household in this class was $25.

TABLE 45.—*Households consuming specified product at breakfast in 1 week, distributed according to income*

BALTIMORE

| Income of household, 1 week | Households using— | | | | |
|---|---|---|---|---|---|
| | Oranges | | Grapefruit | | Canned tomato juice |
| | For fruit | For juice | For fruit | For juice | |
| $0–$4.99 | 8 | 6 | 7 | 2 | 3 |
| $5–$9.99 | 14 | 13 | 19 | 8 | 4 |
| $10–$14.99 | 24 | 16 | 27 | 6 | 4 |
| $15–$19.99 | 24 | 25 | 42 | 13 | 15 |
| $20–$24.99 | 16 | 27 | 35 | 10 | 17 |
| $25–$29.99 | 12 | 31 | 23 | 13 | 13 |
| $30–$34.99 | 13 | 17 | 21 | 5 | 11 |
| $35–$39.99 | 10 | 21 | 25 | 6 | 10 |
| $40–$44.99 | 5 | 9 | 7 | | 5 |
| Total | 126 | 165 | 206 | 63 | 82 |

ST. LOUIS

| | | | | | |
|---|---|---|---|---|---|
| $0–$4.99 | 9 | 9 | 16 | 1 | 2 |
| $5–$9.99 | 2 | 1 | 3 | 1 | 1 |
| $10–$14.99 | 18 | 6 | 24 | 3 | 7 |
| $15–$19.99 | 11 | 12 | 18 | 1 | 2 |
| $20–$24.99 | 9 | 14 | 19 | 2 | 3 |
| $25–$29.99 | 4 | 11 | 15 | 1 | 1 |
| $30–$34.99 | 5 | 7 | 11 | 1 | 5 |
| $35–$39.99 | 4 | 14 | 14 | 1 | 6 |
| $40–$44.99 | 10 | 13 | 16 | 2 | 4 |
| Total | 72 | 87 | 136 | 13 | 31 |

TABLE 46.—*Households using 1 specified product or group of products at breakfast in 1 week, distributed according to income*

BALTIMORE

| Income of household, 1 week | Households [1] using— | | | | |
|---|---|---|---|---|---|
| | Fresh oranges | Fresh grapefruit | Canned tomato juice | Oranges and grapefruit | Oranges, grapefruit and canned tomato juice |
| $0–$4.99 | 2 | 1 | | 10 | 1 |
| $5–$9.99 | 8 | 6 | 2 | 14 | 1 |
| $10–$14.99 | 18 | 12 | 1 | 17 | 1 |
| $15–$19.99 | 10 | 15 | 3 | 36 | 3 |
| $20–$24.99 | 9 | 13 | 3 | 14 | 2 |
| $25–$29.99 | 18 | 7 | 1 | 13 | 2 |
| $30–$34.99 | 5 | 4 | 1 | 17 | 2 |
| $35–$39.99 | 3 | 5 | 1 | 9 | 6 |
| $40–$44.99 | 4 | | | 7 | 3 |
| $45–$49.99 | 1 | 3 | | 5 | |
| $50–$99.99 | 3 | 2 | | 6 | 2 |
| $100–$149.99 | 1 | | | 1 | |
| Total | 82 | 68 | 12 | 149 | 23 |

ST. LOUIS

| | | | | | |
|---|---|---|---|---|---|
| $0–$4.99 | 3 | 3 | | 8 | |
| $5–$9.99 | 1 | 2 | 1 | 1 | |
| $10–$14.99 | 10 | 7 | 4 | 15 | |
| $15–$19.99 | 10 | 8 | 1 | 10 | |
| $20–$24.99 | 10 | 6 | 1 | 11 | 1 |
| $25–$29.99 | 5 | 6 | | 9 | |
| $30–$34.99 | 4 | 2 | 3 | 6 | |
| $35–$39.99 | 7 | 2 | | 14 | 2 |
| $40–$44.99 | 7 | 2 | 2 | 8 | 1 |
| $45–$49.99 | 1 | | | 2 | 4 |
| $50–$99.99 | 7 | 1 | | 19 | 4 |
| $100–$149.99 | 1 | | | 1 | |
| Total | 66 | 39 | 12 | 104 | 12 |

[1] No household is shown in more than 1 column.

TABLE 47.—*Fresh oranges, fresh grapefruit: Average price paid for each product by stated number of households, by source of purchase*

BALTIMORE

| Source of purchase | Oranges | | Grapefruit | |
|---|---|---|---|---|
| | Average price of 1 dozen | Number of households | Average price of one grapefruit | Number of households |
| | *Cents* | | *Cents* | |
| Food store | 27.5 | 367 | 6.2 | 229 |
| Fruit stand | 26.3 | 283 | 5.0 | 163 |
| Huckster | 26.9 | 189 | 4.8 | 121 |
| Average | 26.9 | | 5.5 | |
| Total | | 839 | | 513 |

ST. LOUIS

| | | | | |
|---|---|---|---|---|
| Food store | 27.9 | 531 | 6.0 | 299 |
| Fruit stand | 26.3 | 92 | 5.0 | 59 |
| Huckster | 26.7 | 50 | 6.3 | 34 |
| Average | 27.6 | | 5.9 | |
| Total | | 673 | | 392 |

TABLE 48.—*Fresh oranges, fresh grapefruit: Basis of judging quality of fresh fruit*

| Basis of judging quality | Number of housewives stating designated basis of judging quality of— | | | |
|---|---|---|---|---|
| | Fresh oranges | | Fresh grapefruit | |
| | Baltimore | St. Louis | Baltimore | St. Louis |
| Size | 41 | 33 | 39 | 18 |
| Weight | 72 | 62 | 110 | 94 |
| Color | 42 | 26 | 31 | 12 |
| Softness | 75 | 40 | 64 | 25 |
| Skin | 38 | 50 | 36 | 23 |
| Brand | 33 | 82 | 15 | 16 |
| Merchant's opinion | 75 | 160 | 62 | 130 |
| Appearance | 12 | 73 | 11 | 55 |
| Price | 7 | 35 | 4 | 19 |
| Other [1] | 35 | 28 | 21 | 15 |
| Total housewives each indicating a single basis | 430 | 589 | 393 | 407 |
| Combinations: | | | | |
| Size and weight | 9 | 10 | 17 | 9 |
| Size and softness | 7 | 5 | 3 | 6 |
| Size and skin | 4 | 10 | 4 | 3 |
| Weight and color | 3 | 20 | 6 | 16 |
| Weight and softness | 11 | 6 | 13 | 9 |
| Weight and skin | 12 | 14 | 13 | 8 |
| Color and softness | 11 | 18 | 8 | 4 |
| Size, color, and softness | 2 | 10 | 1 | 6 |
| Softness and skin | 12 | 1 | 13 | 1 |
| Size, weight, and softness | 4 | 2 | 11 | 5 |
| Size, weight, brand and skin | 11 | | | |
| Other combinations [2] | 130 | 107 | 79 | 43 |
| Total | 216 | 203 | 168 | 110 |
| Total housewives who reported having means of judging quality | 646 | 792 | 561 | 517 |

[1] Includes "feeling," "firmness," "ripeness," "odor," etc.
[2] Includes "color, softness, and brand," "weight and appearance," "size and brand," etc.

TABLE 49.—*Number of housewives buying different qualities of fresh fruit for juice and for fruit, and basis of distinction between purchases for use as fruit or juice*

BALTIMORE

| Product | Number seeking different quality for fruit than for juice | Bases of distinction | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Size | Variety | Appearance | Size and variety | Size and appearance | Variety and appearance | Size, variety, and appearance |
| Oranges | 193 | 40 | 25 | 83 | 12 | 18 | 9 | 6 |
| Grapefruit | 142 | 26 | 11 | 78 | 1 | 19 | 4 | 3 |

ST. LOUIS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Oranges | 78 | 22 | 11 | 7 | 3 | 34 | | 1 |
| Grapefruit | 33 | 6 | 1 | 6 | 1 | 19 | | |

U. S. GOVERNMENT PRINTING OFFICE: 1938